

## Columbia County Building Permit Application

Revised 9-23-04

or Office Use Only Application # 0605-87 Date Received 6/24/06 By GH Permit # 24584  
Application Approved by - Zoning Official BLK Date 01.06.06 Plans Examiner OK JTH Date 5-31-06  
Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A-3  
Comments Section 2.3.1

GH needed

Applicants Name Mangrum Construction, Inc. / David Mangrum Phone 386-752-6399  
Address P.O. Box 2103 Lake City, FL 32056-2103  
Owners Name Mangrum Construction, Inc. Phone 386-752-6399  
911 Address 386 SW Mallie Ter. Lake City, FL 32024  
Contractors Name Mangrum Construction, Inc. Phone 386-752-6399  
Address P.O. Box 2103 Lake City, FL 32056-2103  
Fee Simple Owner Name & Address N/A  
Bonding Co. Name & Address N/A  
Architect/Engineer Name & Address Fred C. Jones P.E.  
Mortgage Lenders Name & Address CASH

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy

Property ID Number 07 45 16 02808, 025 Estimated Cost of Construction 80,000.00

Subdivision Name Barwick West (Unrecorded) Lot 7 Block      Unit      Phase     

Driving Directions US 90 W to Pinemount Rd go SW to Barwick Rd, Turn Left  
go to Parker Rd turn right go to Mallie Ter. turn Left Lot's #6 #7 #8  
500 yards on the right.

Type of Construction Residential New Construction Number of Existing Dwellings on Property 0

Total Acreage 2.950 Lot Size 128.3333% Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 100' Side 86.38' Side 86.38' Rear 436.80'

Total Building Height 17' Number of Stories 1 Heated Floor Area 1438 Roof Pitch 4/12  
Porch 120 Garage 400 TOTAL 1958

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

**WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.**

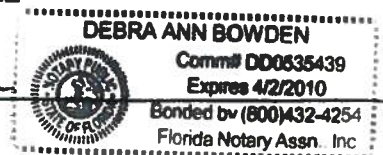
Mangrum Construction, Inc.  
Owner/Builder or Agent (Including Contractor)

STATE OF FLORIDA  
COUNTY OF COLUMBIA

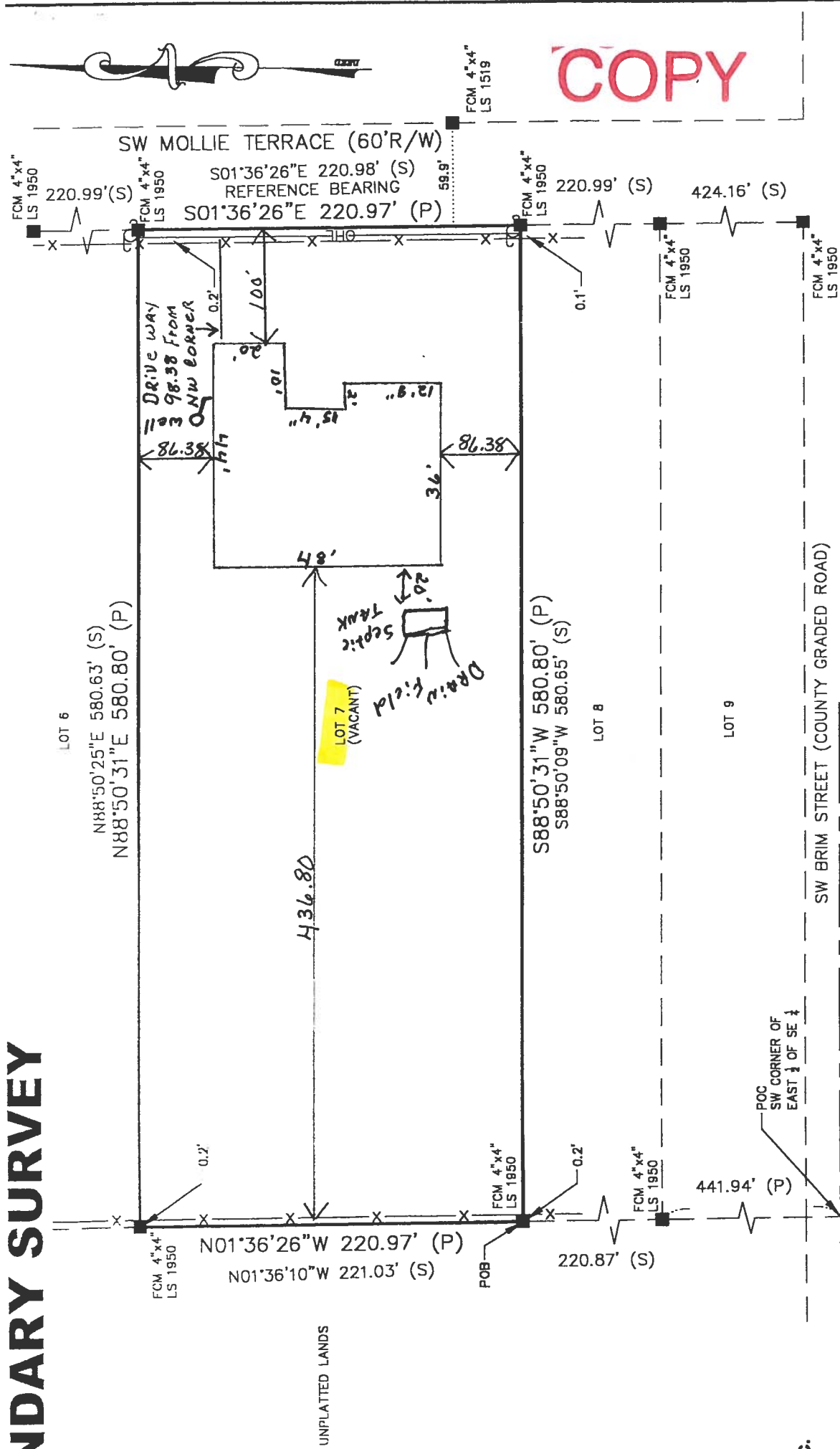
Sworn to (or affirmed) and subscribed before me  
this 24th day of May 2006.  
Personally known      or Produced Identification     

David E. Mangrum  
Contractor Signature  
Contractors License Number RB-29003100  
Competency Card Number 5661  
NOTARY STAMP/SEAL

Debra A. Bowden  
Notary Signature



# NDARY SURVEY



ED. THE PUBLIC RECORDS,  
MENTS, TITLE, COVENANTS,  
ETC., THERE COULD BE  
EL.

MY DIRECT  
- STANDARDS  
7-6, FLORIDA  
UES.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

REV:

WILLIAM N. KITCHEN  
PROFESSIONAL SURVEYOR AND MAPPER  
152 N MARION AVENUE  
LAKE CITY, FLORIDA 32055  
PHONE (386) 755-7786

CLIENT: MANGRUM CONSTRUCTION, INC.

DRAWN BY: RI FIELD BOOK: 06087

SCALE: 1" = 80'

DATE: MARCH 07, 2006

JOB NUMBER SHEET

06087

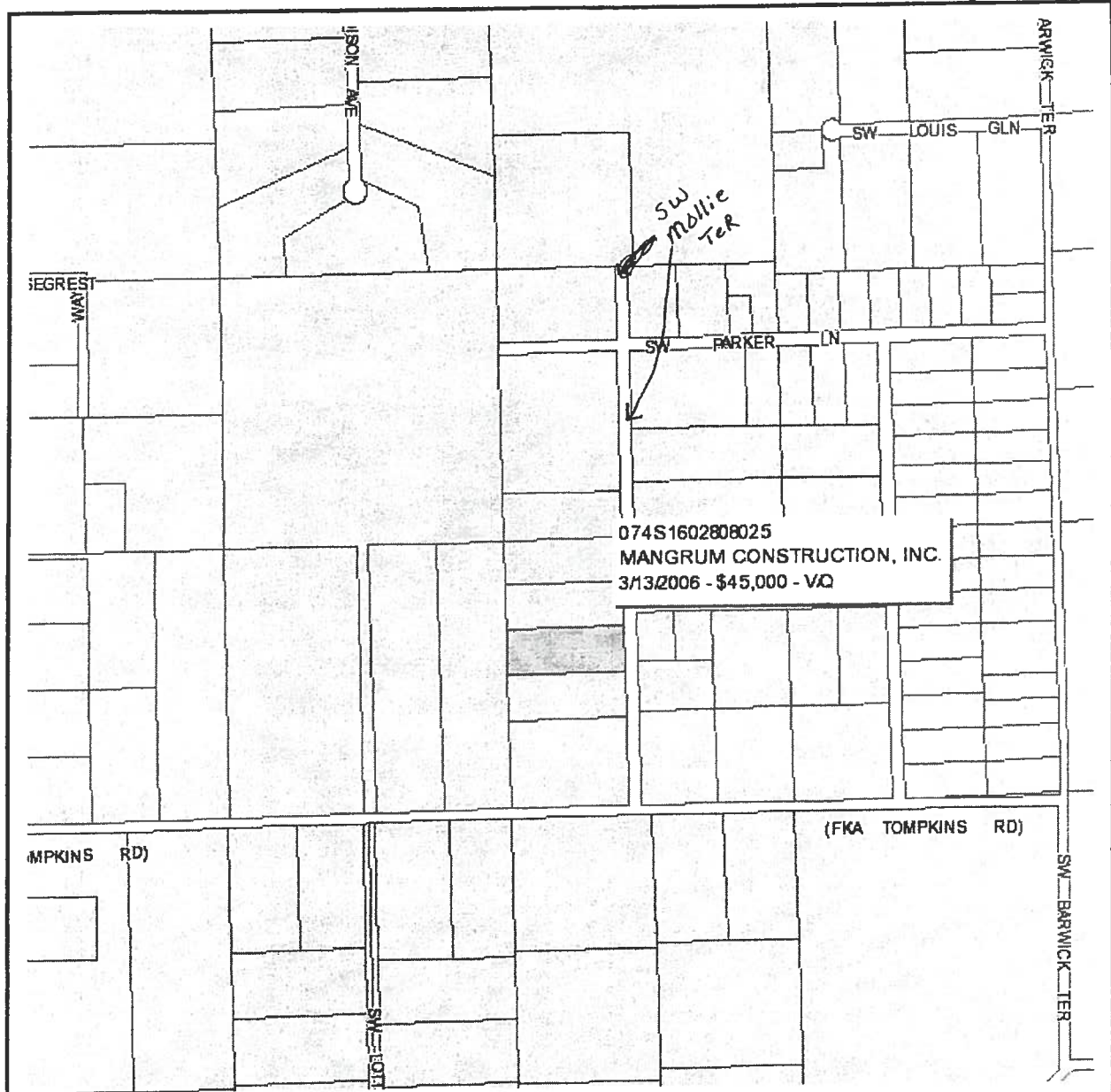
1 OF 1

LEGEND

(P) = PLAT  
(S) = SURVEY MEASUREMENT  
NOID = NO SURVEYORS IDENTIFICATION  
LS = LAND SURVEYOR  
FCM = FOUND CONCRETE MONUMENT  
POB = POINT OF COMMENCEMENT  
R/W = RIGHT OF BEGINNING  
OHE = OVER HEAD ELECTRIC

X --- X = WIRE FENCE  
C = POWER POLE

Lat #07



COPY

**Columbia County Property Appraiser**

J. Doyle Crews, CFA - Lake City, Florida - 386-758-1083

**PARCEL: 07-4S-16-02808-025** - NO AG ACRE (009900) *2.950 Acres*COMM AT THE SW COR OF THE E 1/2 OF THE SE 1/4. RUN N 662.91 FT. TO POB.  
CONT. N

Name: MANGRUM CONSTRUCTION, INC.

Site:

Mail: 634 SE MAYHALL TERR  
LAKE CITY, FL 32025

Sales Info 3/13/2006 \$45,000.00 V / Q

LandVal	\$29,500.00
BldgVal	\$0.00
ApprVal	\$29,500.00
JustVal	\$29,500.00
Assd	\$29,500.00
Exmpt	\$0.00
Taxable	\$29,500.00

0 0.06 0.12 0.18 mi



This information, GIS Map Updated: 4/6/2006, was derived from data which was compiled by the Columbia County Property Appraiser Office solely for the governmental purpose of property assessment. This information should not be relied upon by anyone as a determination of the ownership of property or market value. No warranties, expressed or implied, are provided for the accuracy of the data herein, it's use, or it's interpretation. Although it is periodically updated, this information may not reflect the data currently on file in the Property Appraiser's office. The assessed values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

NOTICE OF COMMENCEMENT FORM  
COLUMBIA COUNTY, FLORIDA

**\*\*\* THIS DOCUMENT MUST BE RECORDED AT THE COUNTY  
CLERKS OFFICE BEFORE YOUR FIRST INSPECTION. \*\*\***

THE UNDERSIGNED hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Tax Parcel ID Number: 07.45 16.02808 025

PERMIT NUMBER \_\_\_\_\_

1. Description of property: (legal description of the property and street address or 911 address) 386 SW Mollie Ter Lake City, FL 32024  
Lot 7, Barrick West Township 4 South, Range 16 E Section 7; Commence at the Southwest Corner of the East 1/2 of the SE 1/4 and run N 01 deg. 36' 2" W 662.91 feet to the point of beginning; thence continue N 01 deg. 36' 26" W 220.97 feet; thence N 88 deg. 50' 31" E 580.80 feet; thence S 01 deg. 36' 26" E 220.97 feet; thence S 88 deg. 50' 31" W 580.80 feet to the point of beginning. Lying in Columbia County FL
2. General description of improvement: Residential New Construction
3. Owner Name & Address Mangrum Construction, Inc. P.O. Box 2103 Lake City, FL 32056-2103 Interest in Property 100 %
4. Name & Address of Fee Simple Owner (if other than owner): N/A
5. Contractor Name Mangrum Construction, Inc. Phone Number 386-752-6399  
Address P.O. Box 2103 Lake City, FL 32056-2103
6. Surety Holders Name N/A Phone Number \_\_\_\_\_  
Address \_\_\_\_\_  
Amount of Bond \_\_\_\_\_
7. Lender Name N/A Phone Number \_\_\_\_\_  
Address \_\_\_\_\_
8. Persons within the State of Florida designated by the Owner upon whom notices or other documents may be served as provided by section 718.13 (1)(a) 7; Florida Statutes:  
Name David E Mangrum Phone Number 386-752-6399  
Address P.O. Box 2103 Lake City, FL 32056-2103
9. In addition to himself/herself the owner designates N/A of \_\_\_\_\_ to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) -  
(a) 7. Phone Number of the designee N/A
10. Expiration date of the Notice of Commencement (the expiration date is 1 (one) year from the date of recording, (Unless a different date is specified) \_\_\_\_\_

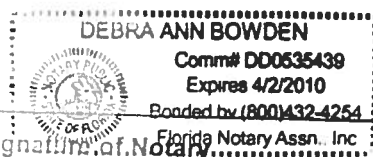
**NOTICE AS PER CHAPTER 713, Florida Statutes:**

The owner must sign the notice of commencement and no one else may be permitted to sign in his/her stead.

David E Mangrum  
Signature of Owner

Sworn to (or affirmed) and subscribed before me this  
24<sup>th</sup> day of May, 2006

NOTARY STAMP/SEAL



Inst:2006012602 Date:05/24/2006 Time:12:52  
17 DC, P. Dewitt Cason, Columbia County B:1084 P:1871

Signature of Notary

Debra A Bowden

# COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787

PHONE: (386) 758-1125 \* FAX: (386) 758-1365 \* Email: ron\_croft@columbiacountyfla.com

## Addressing Maintenance

To maintain the Countywide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for assigning and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Service Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County.

DATE REQUESTED: 4/20/2006 DATE ISSUED: 4/27/2006

### ENHANCED 9-1-1 ADDRESS:

386 SW MOLLIE

TER

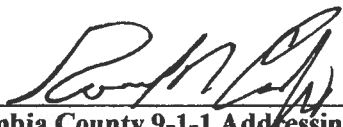
LAKE CITY FL 32024

### PROPERTY APPRAISER PARCEL NUMBER:

07-4S-16-02808-025

### Remarks:

Address Issued By:

  
Columbia County 9-1-1 Addressing / GIS Department

**NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE.**

31-50  
338.55

WARRANTY DEED

THIS INDENTURE, made this 13 day of March, 2006, between C. A. BOSTON, JR. and BETTY L. BOSTON, his wife, whose address is Post Office Box 721, Lake City, Florida 32056, Grantors, and MANGRUM CONSTRUCTION, INC., a Florida corporation, whose address is 634 SE Mayhall Terrace, Lake City, Florida 32025, Grantee,

W I T N E S S E T H:

That said Grantors, for and in consideration of the sum of TEN AND NO/100 (\$10.00) DOLLARS, and other good and valuable considerations to said Grantors in hand paid by said Grantee, the receipt whereof is hereby acknowledged, have granted, bargained and sold to the said Grantee, and Grantee's heirs, successors and assigns forever, the following described land, situate, lying and being in COLUMBIA County, Florida, to-wit:

SEE SCHEDULE A ATTACHED HERETO (Lot 7)

Tax parcel number R02808-016 (cutout)

SUBJECT TO: Taxes for 2006 and subsequent years; restrictions and easements of record; and easements shown by the plat of said property.

Said Grantors do hereby fully warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, Grantors have hereunto set their hands and seals the day and year first above written.

Signed, sealed and delivered  
in the presence of:

Eddie M. Anderson  
Print Name: Eddie M. Anderson

Julie Calloway  
Print Name: Julie Calloway  
Witnesses as to Grantors

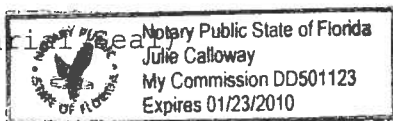
STATE OF FLORIDA  
COUNTY OF COLUMBIA

C. A. Boston JR  
C. A. BOSTON, JR.  
Betty L. Boston  
BETTY L. BOSTON

This Instrument Prepared By:  
EDDIE M. ANDERSON, P.A.  
P. O. Box 1179  
Lake City, Florida 32056-1179

The foregoing instrument was acknowledged before me this 13 day of March, 2006, by C. A. BOSTON, JR. and BETTY L. BOSTON. They produced FWD as identification.

(Notary Seal)



Julie Calloway  
Notary Public  
My Commission Expires:

Inst:2006006063 Date:03/13/2006 Time:13:23

Doc Stamp-Deed : 315.00

by DC, P. DeWitt Cason, Columbia County B:1076 P:2688

SCHEDULE A TO WARRANTY DEED

BOSTON to MANGRUM CONSTRUCTION, INC.

(Lot 7, Barwick West, unrecorded)

TOWNSHIP 4 SOUTH, RANGE 16 EAST

Section 7: Commence at the Southwest corner of the East 1/2 of the SE 1/4 and run N 01 deg. 36' 26" W 662.91 feet to the point of beginning; thence continue N 01 deg. 36' 26" W 220.97 feet; thence N 88 deg. 50' 31" E 580.80 feet; thence S 01 deg. 36' 26" E 220.97 feet; thence S 88 deg. 50' 31" W 580.80 feet to the point of beginning. Lying in Columbia County, Florida.

Inst:2006006063 Date:03/13/2006 Time:13:23

Doc Stamp-Deed : 315.00

\_\_\_\_\_, P. DeWitt Cason, Columbia County B:1076 P:2689

**Pat Lynch**  
**LYNCH DRILLING Corp.**  
 P. O. BOX 934  
 Branford, FL 32008-0934  
 (386) 935-1076

Mangrum Construction  
 P.O. Box 2103  
 Lake City, Fl 32056-2103

DATE: 5-24-06

4" Water well complete with 4" black water well steel casing, 1HP submersible pump (20 gpm) with 1 1/4" galvanized drop pipe, and 81 gallon captive air tank (21.9 gallon drawdown) (maximum 100 feet included) .....

Well will be complete at the well site. We do not include electrical nor plumbing connections from the well to the home and/or power pole.

Prices on estimates are subject to change, if estimate is over 30 days old, unless specific arrangements are made to extend limit. Estimated depths are available upon request and after review of the specified location.

**THANK YOU!**

Seller shall retain title to the described merchandise until such merchandise has been paid for by the buyer, however, buyer shall have the right to use, display, move, package, or otherwise deal with the merchandise solely in connection with the sale of such merchandise to buyers in the ordinary course of business. The merchandise delivered hereby is to be paid for upon delivery and if not paid for within thirty (30) days after receipt, interest and service charges shall accrue at the rate of 1 1/2% per month; this charge is equivalent to an interest rate of 18% per annum from the date of receipt. In the event it shall become necessary for seller to collect the purchase price, or any part thereof, buyer agrees to pay to seller all of the cost of collection including reasonable attorney's fees and all incidental damages suffered by the seller. The buyer shall have five (5) days after receipt to notify seller of any defects or shortages in the merchandise. If buyer has not so notified seller within such five-day period such rights shall have waived and such merchandise shall be deemed to have been received in good condition. Seller warrants that the merchandise is merchantable and free from defects in material and workmanship. Seller makes no other express or implied warranties and does not warrant that the merchandise is fit for any particular purpose. Buyer further agrees that the site of this contract and place for payment is Seawater County, Florida. The buyer acknowledges acceptance of the above-stated items and conditions if this sale by his receipt and retention for five days the merchandise shipped or delivered by the seller.

**NOT RESPONSIBLE FOR QUALITY OF WATER**

Property ID Number 07 45 16 02808, 025

Subdivision Name Barwick West (Unrecorded) Lot 7 Block \_\_\_\_\_ Unit \_\_\_\_\_ Phase \_\_\_\_\_

Driving Directions US 90 W to Paramount Rd go SW to Barwick Rd, Turn Left  
on to Parker Rd turn Right go to Mollie Ter turn Left. Lot's #6 #7 #8  
500 yards on the right.

911 Address: 386 SW Mollie Ter.  
Lake City, FL 32024

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs  
Residential Whole Building Performance Method A

Project Name: **mangrum-ryan model**  
Address: **Lot: , Sub: , Plat:**  
City, State: **,**  
Owner: **mangrum construction**  
Climate Zone: **North**

Builder:  
Permitting Office:  
Permit Number:  
Jurisdiction Number:

1. New construction or existing New ☐
2. Single family or multi-family Single family ☐
3. Number of units, if multi-family 1 ☐
4. Number of Bedrooms 3 ☐
5. Is this a worst case? Yes ☐
6. Conditioned floor area (ft²) 1438 ft² ☐
7. Glass type<sup>1</sup> and area: (Label reqd. by 13-104.4.5 if not default)
  - a. U-factor: Description Area  
(or Single or Double DEFAULT) 7a. (Dble Default) 175.3 ft² ☐
  - b. SHGC:  
(or Clear or Tint DEFAULT) 7b. (Clear) 175.3 ft² ☐
8. Floor types
  - a. Slab-On-Grade Edge Insulation R=0.0, 196.7(p) ft ☐
  - b. N/A ☐
  - c. N/A ☐
9. Wall types
  - a. Concrete, Int Insul, Exterior R=5.0, 1770.3 ft² ☐
  - b. Frame, Wood, Adjacent R=11.0, 260.0 ft² ☐
  - c. N/A ☐
  - d. N/A ☐
  - e. N/A ☐
10. Ceiling types
  - a. Under Attic R=30.0, 1438.0 ft² ☐
  - b. N/A ☐
  - c. N/A ☐
11. Ducts
  - a. Sup: Unc. Ret: Unc. AH: Garage Sup. R=6.0, 106.4 ft ☐
  - b. N/A ☐

12. Cooling systems
  - a. Central Unit Cap: 32.6 kBtu/hr  
SEER: 13.00 ☐
  - b. N/A ☐
  - c. N/A ☐
13. Heating systems
  - a. Electric Heat Pump Cap: 35.0 kBtu/hr  
HSPF: 8.00 ☐
  - b. N/A ☐
  - c. N/A ☐
14. Hot water systems
  - a. Electric Resistance Cap: 40.0 gallons  
EF: 0.92 ☐
  - b. N/A ☐
  - c. Conservation credits  
(HR-Heat recovery, Solar  
DHP-Dedicated heat pump) ☐
15. HVAC credits  
(CF-Ceiling fan, CV-Cross ventilation,  
HF-Whole house fan,  
PT-Programmable Thermostat,  
MZ-C-Multizone cooling,  
MZ-H-Multizone heating) ☐

Glass/Floor Area: 0.12

Total as-built points: 24391

Total base points: 25028

**PASS**

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

**PREPARED BY:** *[Signature]*

**DATE:** 12/26/06

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

**OWNER/AGENT:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

**BUILDING OFFICIAL:** \_\_\_\_\_

**DATE:** \_\_\_\_\_



<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt			Area X SPM X SOF = Points			
.18	1438.0	20.04	5187.2	Double, Clear	SE	1.5	6.0	50.0	42.75	0.88	1888.3
				Double, Clear	SW	1.5	6.0	43.3	40.16	0.89	1539.0
				Double, Clear	NE	1.5	6.0	15.0	29.56	0.92	408.1
				Double, Clear	NE	1.5	8.0	42.0	29.56	0.96	1191.6
				Double, Clear	NW	1.5	6.0	25.0	25.97	0.93	600.9
				As-Built Total:			175.3			5628.0	
WALL TYPES Area X BSPM = Points				Type	R-Value			Area X SPM = Points			
Exterior	1770.3	1.70	3009.5	Concrete, Int Insul, Exterior	5.0			1770.3	1.00	1770.3	
Adjacent	260.0	0.70	182.0	Frame, Wood, Adjacent	11.0			260.0	0.70	182.0	
Base Total:				2030.3			3191.5			As-Built Total:	
				2030.3			1952.3				
DOOR TYPES Area X BSPM = Points				Type	Area X SPM = Points						
Exterior	21.0	4.10	86.1	Exterior Wood	21.0 6.10 128.1						
Adjacent	0.0	0.00	0.0								
Base Total:				21.0			128.1				
				21.0			128.1				
CEILING TYPES Area X BSPM = Points				Type	R-Value			Area X SPM X SCM = Points			
Under Attic	1438.0	1.73	2487.7	Under Attic	30.0			1438.0	1.73 X 1.00	2487.7	
Base Total:				1438.0			2487.7				
				1438.0			2487.7				
FLOOR TYPES Area X BSPM = Points				Type	R-Value			Area X SPM = Points			
Slab	196.7(p)	-37.0	-7277.9	Slab-On-Grade Edge Insulation	0.0			196.7(p)	-41.20	-8104.0	
Raised	0.0	0.00	0.0								
Base Total:				-7277.9			196.7 -8104.0				
				196.7			-8104.0				
INFILTRATION Area X BSPM = Points				Area X SPM = Points							
				1438.0 10.21 14682.0							
				1438.0 10.21 14682.0							

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,	PERMIT #:
------------------------------------	-----------

BASE				AS-BUILT									
Summer Base Points: 18356.6				Summer As-Built Points: 16774.1									
Total Summer Points	X	System Multiplier	= Cooling Points	Total Component (System - Points)	X	Cap Ratio (DM x DSM x AHU)	X	Duct Multiplier	X	System Multiplier	X	Credit Multiplier	= Cooling Points
18356.6		0.4266	7830.9	(sys 1: Central Unit 32600 btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS) 16774 1.00 (1.09 x 1.147 x 1.00) 0.263 1.000 5505.8 16774.1 1.00 1.250 0.263 1.000 5505.8									

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt			Area X WPM X WOF = Points			
.18	1438.0	12.74	3297.6	Double, Clear	SE	1.5	6.0	50.0	14.71	1.10	806.1
				Double, Clear	SW	1.5	6.0	43.3	16.74	1.06	768.4
				Double, Clear	NE	1.5	6.0	15.0	23.57	1.01	355.8
				Double, Clear	NE	1.5	8.0	42.0	23.57	1.00	991.9
				Double, Clear	NW	1.5	6.0	25.0	24.30	1.00	609.3
				As-Built Total:						175.3	
WALL TYPES Area X BWPM = Points				Type	R-Value			Area X WPM = Points			
Exterior	1770.3	3.70	6550.1	Concrete, Int Insul, Exterior	5.0			1770.3	5.70	10090.7	
Adjacent	260.0	3.60	936.0	Frame, Wood, Adjacent	11.0			260.0	3.60	936.0	
Base Total:		2030.3	7486.1	As-Built Total:			2030.3			11026.7	
DOOR TYPES Area X BWPM = Points				Type				Area X WPM = Points			
Exterior	21.0	8.40	176.4	Exterior Wood				21.0	12.30	258.3	
Adjacent	0.0	0.00	0.0								
Base Total:		21.0	176.4	As-Built Total:			21.0			258.3	
CEILING TYPES Area X BWPM = Points				Type	R-Value			Area X WPM X WCM = Points			
Under Attic	1438.0	2.05	2947.9	Under Attic	30.0			1438.0	2.05 X 1.00	2947.9	
Base Total:		1438.0	2947.9	As-Built Total:			1438.0			2947.9	
FLOOR TYPES Area X BWPM = Points				Type	R-Value			Area X WPM = Points			
Slab	196.7(p)	8.9	1750.6	Slab-On-Grade Edge Insulation	0.0			196.7(p)	18.80	3698.0	
Raised	0.0	0.00	0.0								
Base Total:			1750.6	As-Built Total:			196.7			3698.0	
INFILTRATION Area X BWPM = Points							Area X WPM = Points				
		1438.0	-0.59	-848.4				1438.0		-0.59	-848.4

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE			AS-BUILT						
Winter Base Points: 14810.2			Winter As-Built Points: 20614.0						
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points	
14810.2	0.6274	9291.9	(sys 1: Electric Heat Pump 35000 btuh ,EFF(8.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 20614.0	1.000	(1.069 x 1.169 x 1.00)	0.426	1.000	10980.4	
			20614.0	1.00	1.250	0.426	1.000	10980.4	

**WATER HEATING & CODE COMPLIANCE STATUS**

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT					
WATER HEATING				Tank Volume	EF	Number of Bedrooms	X Tank X Ratio	Multiplier X Credit Multiplier	= Total
Number of Bedrooms	X	Multiplier	= Total						
3		2635.00	7905.0	40.0	0.92	3	1.00	2635.00	1.00 7905.0
				As-Built Total:					7905.0

CODE COMPLIANCE STATUS									
BASE					AS-BUILT				
Cooling Points	+	Heating Points	+	Hot Water Points = Total Points	Cooling Points	+	Heating Points	+	Hot Water Points = Total Points
7831		9292		7905 25028	5506		10980		7905 24391

**PASS**

# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

**6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST**

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

**6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)**

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

**ESTIMATED ENERGY PERFORMANCE SCORE\* = 83.7**

**The higher the score, the more efficient the home.**

mangrum construction, Lot: , Sub: , Plat: , , ,

1. New construction or existing	New	___	12. Cooling systems	
2. Single family or multi-family	Single family	___	a. Central Unit	Cap: 32.6 kBtu/hr
3. Number of units, if multi-family	1	___		SEER: 13.00
4. Number of Bedrooms	3	___	b. N/A	___
5. Is this a worst case?	Yes	___	c. N/A	___
6. Conditioned floor area (ft <sup>2</sup> )	1438 ft <sup>2</sup>	___		___
7. Glass type <sup>1</sup> and area: (Label reqd. by 13-104.4.5 if not default)		___	13. Heating systems	
a. U-factor:	Description Area		a. Electric Heat Pump	Cap: 35.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 175.3 ft <sup>2</sup>	___		HSPF: 8.00
b. SHGC:		___	b. N/A	___
(or Clear or Tint DEFAULT)	7b. (Clear) 175.3 ft <sup>2</sup>	___	c. N/A	___
8. Floor types		___		___
a. Slab-On-Grade Edge Insulation	R=0.0, 196.7(p) ft	___	14. Hot water systems	
b. N/A		___	a. Electric Resistance	Cap: 40.0 gallons
c. N/A		___		EF: 0.92
9. Wall types		___	b. N/A	___
a. Concrete, Int Insul, Exterior	R=5.0, 1770.3 ft <sup>2</sup>	___	c. Conservation credits	___
b. Frame, Wood, Adjacent	R=11.0, 260.0 ft <sup>2</sup>	___	(HR-Heat recovery, Solar	
c. N/A		___	DHP-Dedicated heat pump)	
d. N/A		___	15. HVAC credits	___
e. N/A		___	(CF-Ceiling fan, CV-Cross ventilation,	
10. Ceiling types		___	HF-Whole house fan,	
a. Under Attic	R=30.0, 1438.0 ft <sup>2</sup>	___	PT-Programmable Thermostat,	
b. N/A		___	MZ-C-Multizone cooling,	
c. N/A		___	MZ-H-Multizone heating)	
11. Ducts		___		
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 106.4 ft	___		
b. N/A		___		

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

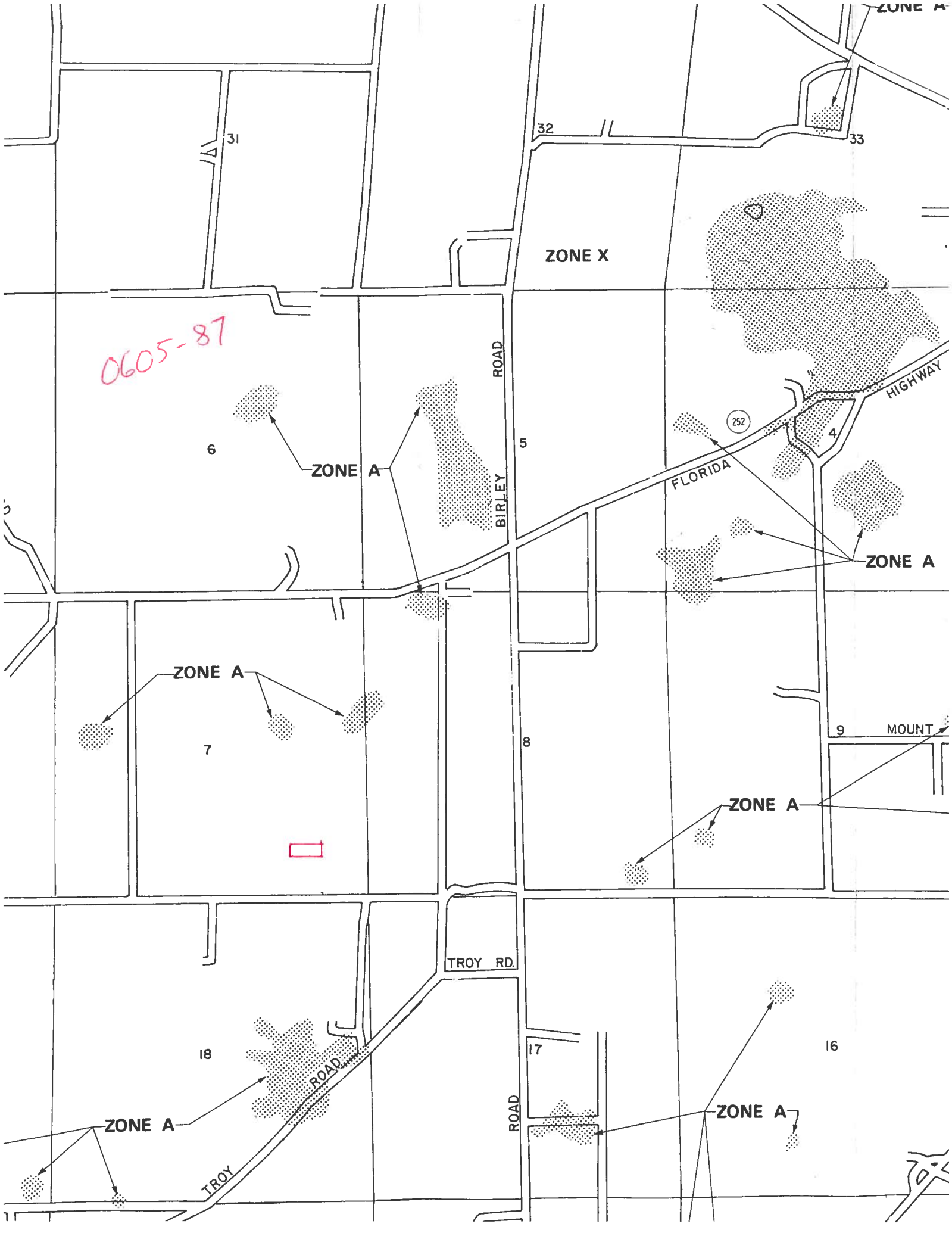
Builder Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address of New Home: \_\_\_\_\_ City/FL Zip: \_\_\_\_\_



*\*NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at [www.fsec.ucf.edu](http://www.fsec.ucf.edu) for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.  
EnergyGauge® (Version: FLRCSB v4.21)





STATE OF FLORIDA  
DEPARTMENT OF HEALTH

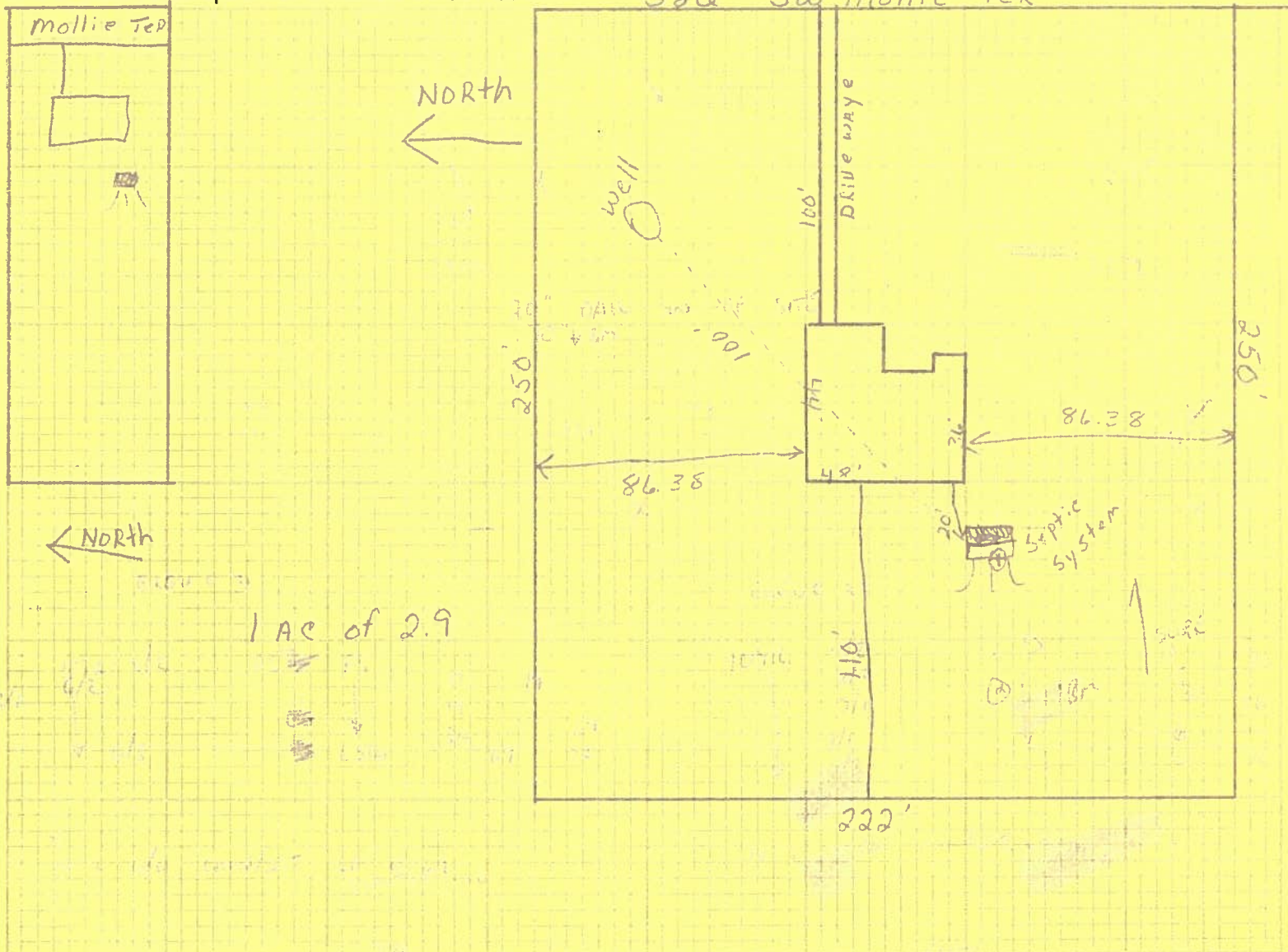
APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number

0506N  
~~06-000000~~

PART II - SITE PLAN

Scale: Each block represents 5 feet and 1 inch = 50 feet.



Notes: Lat 7 Barwick West Subdivision

Site Plan submitted by: Dubna Bowden

Signature

Office Manager

Title

Plan Approved ☒

Not Approved

Date 5-24-06

6/3/06

By: [Signature]

County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

**Location:** \_\_\_\_\_

**Project Name:** \_\_\_\_\_

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit on or after April 1, 2004. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at [www.floridabuilding.org](http://www.floridabuilding.org)

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
<b>A. EXTERIOR DOORS</b>			
1. Swinging			
2. Sliding			
3. Sectional			
4. Roll up			
5. Automatic			
6. Other			
<b>B. WINDOWS</b>			
1. Single hung			
2. Horizontal Slider			
3. Casement			
4. Double Hung			
5. Fixed			
6. Awning			
7. Pass-through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11 Dual Action			
12. Other			
<b>C. PANEL WALL</b>			
1. Siding			
2. Soffits			
3. EIFS			
4. Storefronts			
5. Curtain walls			
6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other			
<b>D. ROOFING PRODUCTS</b>			
1. Asphalt Shingles			
2. Underlayments			
3. Roofing Fasteners			
4. Non-structural Metal Rf			
5. Built-Up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing Sys			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			

Category/Subcategory (continued)			
13. Liquid Applied Roof Sys			
14. Cements-Adhesives – Coatings			
15. Roof Tile Adhesive			
16. Spray Applied Polyurethane Roof			
17. Other			
<b>E. SHUTTERS</b>			
1. Accordion			
2. Bahama			
3. Storm Panels			
4. Colonial			
5. Roll-up			
6. Equipment			
7. Others			
<b>F. SKYLIGHTS</b>			
1. Skylight			
2. Other			
<b>G. STRUCTURAL COMPONENTS</b>			
1. Wood connector/anchor			
2. Truss plates			
3. Engineered lumber			
4. Railing			
5. Coolers-freezers			
6. Concrete Admixtures			
7. Material			
8. Insulation Forms			
9. Plastics			
10. Deck-Roof			
11. Wall			
12. Sheds			
13. Other			
<b>H. NEW EXTERIOR ENVELOPE PRODUCTS</b>			
1.			
2.			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection

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Contractor or Contractor's Authorized Agent Signature

Location

Print Name

Date

Permit # (FOR STAFF USE ONLY)

**RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR  
FLORIDA BUILDING CODE 2004 and FLORIDA RESIDENTIAL CODE 2004  
WITH AMENDMENTS ONE (1) AND TWO (2) FAMILY DWELLINGS**

ALL REQUIREMENTS ARE SUBJECT TO CHANGE  
EFFECTIVE OCTOBER 1, 2005

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 16 OF THE FLORIDA BUILDING CODE 2004 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1609 SHALL BE USED.

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ----- 100 MPH
2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE ----- 110 MPH
3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

**APPLICANT – PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL**

**GENERAL REQUIREMENTS:** Two (2) complete sets of plans containing the following:

<b>Applicant</b>	<b>Plans Examiner</b>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Designers name and signature on document (FBC 106.1). If licensed architect or engineer, official seal shall be affixed.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b><u>Site Plan including:</u></b> a) Dimensions of lot b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b><u>Wind-load Engineering Summary, calculations and any details required</u></b> Plans or specifications must state compliance with FBC Section 1609. The following information must be shown as per section 1603.1.4 FBC a. Basic wind speed (3-second gust), miles per hour (km/hr). b. Wind importance factor, $I_w$ , and building classification from Table 1604.5 or Table 6-1, ASCE 7 and building classification in Table 1-1, ASCE 7. c. Wind exposure, if more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated. d. The applicable enclosure classifications and, if designed with ASCE 7, internal pressure coefficient. e. Components and Cladding. The design wind pressures in terms of psf ( $kN/m^2$ ) to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b><u>Elevations including:</u></b> a) All sides b) Roof pitch c) Overhang dimensions and detail with attic ventilation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	

- ☒ N/A ☐
- ☒ N/A ☐
- ☒ ☐
- ☒ ☐

- ☒ ☐
- ☒ E/P ☐
- ☒ ☐

- ☒ ☐
- ☒ ☐
- ☒ N/A ☐

- ☒ N/A ☐

- ☒ ☐

- ☒ ☐

- ☒ ☐

- ☒ N/A ☐

- ☒ N/A ☐

- ☒ ☐

- ☒ E/P ☐

- ☒ E/P ☐

d) Location, size and height above roof of chimneys.

e) Location and size of skylights

f) Building height

e) Number of stories

**Floor Plan including:**

a) Rooms labeled and dimensioned.

b) Shear walls identified.

c) Show product approval specification as required by Fla. Statute 553.842 and Fla. Administrative Code 9B-72 (see attach forms).

d) Show safety glazing of glass, where required by code.

e) Identify egress windows in bedrooms, and size.

f) Fireplace (gas vented), (gas non-vented) or wood burning with hearth, (Please circle applicable type).

g) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails.

h) Must show and identify accessibility requirements (accessible bathroom)

**Foundation Plan including:**

a) Location of all load-bearing wall with required footings indicated as standard or monolithic and dimensions and reinforcing.

b) All posts and/or column footing including size and reinforcing

c) Any special support required by soil analysis such as piling

d) Location of any vertical steel.

**Roof System:**

a) Truss package including:

1. Truss layout and truss details signed and sealed by Fl. Pro. Eng.

2. Roof assembly (FBC 106.1.1.2 )Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

b) Conventional Framing Layout including:

1. Rafter size, species and spacing

2. Attachment to wall and uplift

3. Ridge beam sized and valley framing and support details

4. Roof assembly (FBC 106.1.1.2)Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

**Wall Sections including:**

a) Masonry wall

1. All materials making up wall

2. Block size and mortar type with size and spacing of reinforcement

3. Lintel, tie-beam sizes and reinforcement

4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details

5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation shall be designed by a Windload engineer using the engineered roof truss plans.

6. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating)

7. Fire resistant construction (if required)

8. Fireproofing requirements

9. Shoe type of termite treatment (termicide or alternative method)

10. Slab on grade

a. Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)

b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports

11. Indicate where pressure treated wood will be placed

12. Provide insulation R value for the following:

- a. Attic space
- b. Exterior wall cavity
- c. Crawl space (if applicable)

☒ b/p ☐

b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers) shall be designed by a Windload engineer using the engineered roof truss plans.
7. Roof assembly shown here or on roof system detail (FBC 106.1.1.2) Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termicide or alternative method)
11. Slab on grade
  - a. Vapor retarder (6Mil. Polyethylene with joints lapped 6 inches and sealed
  - b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
  - a. Attic space
  - b. Exterior wall cavity
  - c. Crawl space (if applicable)

☒ N/A ☐

c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. Engineer or Architect)

**Floor Framing System:**

a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer

- b) Floor joist size and spacing
- c) Girder size and spacing
- d) Attachment of joist to girder
- e) Wind load requirements where applicable

**Plumbing Fixture layout**

**Electrical layout including:**

- a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
- b) Ceiling fans
- c) Smoke detectors
- d) Service panel and sub-panel size and location(s)
- e) Meter location with type of service entrance (overhead or underground)
- f) Appliances and HVAC equipment
- g) Arc Fault Circuits (AFCI) in bedrooms
- h) Exhaust fans in bathroom

**HVAC information**

- a) Energy Calculations (dimensions shall match plans)
- b) Manual J sizing equipment or equivalent computation
- c) Gas System Type (LP or Natural) Location and BTU demand of equipment

**Disclosure Statement for Owner Builders**

\*\*\***Notice Of Commencement Required Before Any Inspections Will Be Done Private Potable Water**

☐ N/A ☐

☐ N/A ☐  
☐ Slab ☐  
☐ ☐  
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☒ N/A ☐  
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☒ ☐  
☒ ☐

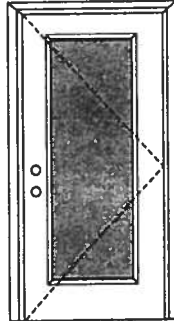
**X**

Glazed Inswing Unit

**COP-WL-JH4141-02**

## WOOD-EDGE STEEL DOORS

### APPROVED ARRANGEMENT:

**Note:**

Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.itswh.com](http://www.itswh.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

Single Door  
Maximum unit size = 3'0" x 6'8"

**Design Pressure**  
**+40.5/-40.5**

Limited water unless special threshold design is used.

**Large Missile Impact Resistance**

**Hurricane protective system (shutters) is REQUIRED.**

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

### MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0001-02 and MAD-WL-MA0041-02.

### MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02.

### APPROVED DOOR STYLES:

#### 1/4 GLASS:



100 Series



133, 135 Series



136 Series



680 Series



822 Series

#### 1/2 GLASS:



105 Series\*



106, 160 Series\*



129 Series\*



200 Series\*



12 R/L, 23 R/L, 24 R/L Series\*



107 Series\*



108 Series



304 Series

\*This glass kit may also be used in the following door styles: 5-panel; 5-panel with scroll; Eyebrow 5-panel; Eyebrow 5-panel with scroll.

**1**

**Johnson**  
**EntrySystems**

June 17, 2002  
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

**PREMDOR** Collection  
Premium Quality Doors



Exclusively from

**Masonite**

Masonite International Corporation

**X**

Glazed Inswing Unit

COP-WL-JH4141-02

**WOOD-EDGE STEEL DOORS****APPROVED DOOR STYLES:  
3/4 GLASS:**

404 Series



410 Series



450 Series

**FULL GLASS:**

109 Series

114, 120, 122  
Series

152 Series



149 Series



300 Series

**CERTIFIED TEST REPORTS:**

NCTL 210-1897-7, 8, 9, 10, 11, 12; NCTL 210-1861-4, 5, 6, 10, 11, 12; NCTL 210-2185-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

**PRODUCT COMPLIANCE LABELING:**

TESTED IN  
ACCORDANCE WITH  
MIAMI-DADE BCCO PA202

COMPANY NAME  
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

State of Florida, Professional Engineer  
Kurt Balthazor, P.E. – License Number 56533

Warnock Hersey



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.itswh.com](http://www.itswh.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

2

**Johnson**  
**EntrySystems™**

June 17, 2002  
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

**PREMDOR® Collection**  
Premium Quality Doors

Exclusively from  
**Masonite®**  
Masonite International Corporation



**AAMA/NWWDA 101/I.S.2-97  
TEST REPORT SUMMARY**

**Rendered to:**

**MI HOME PRODUCTS, INC.**

**SERIES/MODEL: 650 Fin  
TYPE: Aluminum Single Hung Window**

Title of Test	Results
Rating	H-R40 52 x 72
Overall Design Pressure	+45.0 psf -47.2 psf
Operating Force	11 lb max.
Air Infiltration	0.13 cfm/ft <sup>2</sup>
Water Resistance	6.00 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

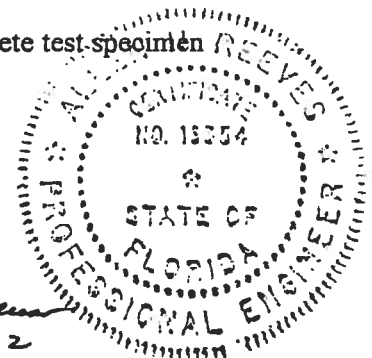
Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:nlb

*Allen H. Reeves*  
1 APRIL 2002





**AAMA/NWWDA 101/I.S.2-97 TEST REPORT**

Rendered to

MI HOME PRODUCTS, INC.  
650 West Market Street  
P.O. Box 370  
Gratz, Pennsylvania 17030-0370

Report No: 01-41134.01  
Test Date: 03/07/02  
Report Date: 03/26/02  
Expiration Date: 03/07/06

**Project Summary:** Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on Series/Model 650 Fin, aluminum single hung window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a H-R40 52 x 72 rating.

**Test Specification:** The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

**Test Specimen Description**

**Series/Model:** 650 Fin

**Type:** Aluminum Single Hung Window

**Overall Size:** 4' 4-1/4" wide by 6' 0-3/8" high

**Active Sash Size:** 4' 1-3/4" wide by 3' 0-5/8" high

**Daylight Opening Size:** 3' 11-3/8" wide by 2' 9-1/2" high

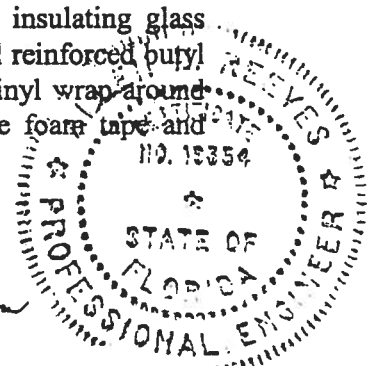
**Screen Size:** 4' 0-1/4" wide by 2' 11-1/8" high

**Finish:** All aluminum was white.

**Glazing Details:** The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

130 Derry Court  
York, PA 17402-9405  
phone: 717.764.7700  
fax: 717.764.4129  
www.archtest.com

*Allen M. Reum*  
1 APRIL 2002





**Test Specimen Description: (Continued)**

**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	1 Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" x 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam-filled vinyl bulb seal	1 Row	Active sash, bottom rail

**Frame Construction:** The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was secured to the frame utilizing two 1-1/4" screws.

**Sash Construction:** The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each jamb screw boss.

**Screen Construction:** The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper		Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail

*Allen H. Reeves*  
1 APRIL 2002



# Test Specimen Description: (Continued)

**Drainage:** Sloped sill

**Reinforcement:** No reinforcement was utilized.

**Installation:** The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

## Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	11 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup> max

*Note #1: The tested specimen meets the performance levels specified in AAMA/NWDA 101/I.S. 2-97 for air infiltration.*

	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	0.42"* 0.43"*	0.26" max. 0.26" max.

*\*Exceeds L/175 for deflection, but passes all other test requirements.*

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 38.9 psf (positive) @ 52.1 psf (negative)	0.02" 0.02"	0.18" max. 0.18" max.
---------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------	--------------------------

*Allen N. Reeves*  
1 APRIL 2002





**Test Specimen Description: (Continued)**

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

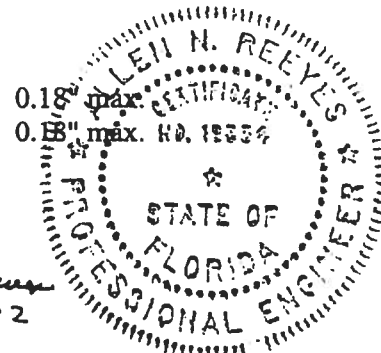
**Optional Performance**


4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.

*\*Exceeds L/175 for deflection, but passes all other test requirements.*

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)	
@ 67.5 psf (positive)	0.05"
@ 70.8 psf (negative)	0.05"

*Allen N. Reeves*  
1 APRIL 2002





Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:



Mark A. Hess  
Technician

MAH:nlb  
01-41134.01



Allen N. Reeves, P.E.  
Director - Engineering Services  
1 APRIL 2002



# Project Summary

## Entire House

 Job: ryan model  
 Date: May 15, 2006  
 By: Louis Weeks

*Application # 0605-87*

### Project Information

 For: Mangrum Construction, Inc.  
 P.O. Box 2103, Lake City, FL 32056-2103  
 Phone: 386-752-6399 Fax: 386-752-6369

Notes: This is a test

### Design Information

Weather: Gainesville, FL, US

#### Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

#### Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

#### Heating Summary

Structure	19685 Btuh
Ducts	5673 Btuh
Central vent (103 cfm)	4176 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	29534 Btuh

#### Sensible Cooling Equipment Load Sizing

Structure	14528 Btuh
Ducts	7058 Btuh
Central vent (103 cfm)	1919 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	22799 Btuh

#### Infiltration

Method	Simplified	
Construction quality	Tight	
Fireplaces	0	
	<b>Heating</b>	<b>Cooling</b>
Area (ft²)	1438	1438
Volume (ft³)	12630	12630
Air changes/hour	0.16	0.08
Equiv. AVF (cfm)	34	17

#### Latent Cooling Equipment Load Sizing

Structure	1792 Btuh
Ducts	1688 Btuh
Central vent (103 cfm)	3627 Btuh
Equipment latent load	7107 Btuh
Equipment total load	29906 Btuh
Req. total capacity at 0.70 SHR	2.7 ton

#### Heating Equipment Summary

Make	Carrier
Trade	Comfort 12 Heat Pump
Model	38YRA03632
Efficiency	7.3 HSPF
Heating input	
Heating output	35000 Btuh @ 47°F
Temperature rise	29 °F
Actual air flow	1087 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.00 in H2O
Space thermostat	

#### Cooling Equipment Summary

Make	Carrier
Trade	Comfort 12 Heat Pump
Cond	38YRA03632
Coil	CE3AXA036000
Efficiency	13 SEER
Sensible cooling	22820 Btuh
Latent cooling	9780 Btuh
Total cooling	32600 Btuh
Actual air flow	1087 cfm
Air flow factor	0.050 cfm/Btuh
Static pressure	0.00 in H2O
Load sensible heat ratio	0.77

Printout certified by ACCA to meet all requirements of Manual J 8th Ed.

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs  
Residential Whole Building Performance Method A

Project Name: **mangrum-ryan model**  
Address: **Lot: , Sub: , Plat:**  
City, State: **,**  
Owner: **mangrum construction**  
Climate Zone: **North**

Builder:  
Permitting Office:  
Permit Number:  
Jurisdiction Number:

1. New construction or existing New ☐
2. Single family or multi-family Single family ☐
3. Number of units, if multi-family 1 ☐
4. Number of Bedrooms 3 ☐
5. Is this a worst case? Yes ☐
6. Conditioned floor area (ft²) 1438 ft² ☐
7. Glass type<sup>1</sup> and area: (Label reqd. by 13-104.4.5 if not default)
  - a. U-factor: Description Area  
(or Single or Double DEFAULT) 7a. (Dble Default) 175.3 ft² ☐
  - b. SHGC:  
(or Clear or Tint DEFAULT) 7b. (Clear) 175.3 ft² ☐
8. Floor types
  - a. Slab-On-Grade Edge Insulation R=0.0, 196.7(p) ft ☐
  - b. N/A ☐
  - c. N/A ☐
9. Wall types
  - a. Concrete, Int Insul, Exterior R=5.0, 1770.3 ft² ☐
  - b. Frame, Wood, Adjacent R=11.0, 260.0 ft² ☐
  - c. N/A ☐
  - d. N/A ☐
  - e. N/A ☐
10. Ceiling types
  - a. Under Attic R=30.0, 1438.0 ft² ☐
  - b. N/A ☐
  - c. N/A ☐
11. Ducts
  - a. Sup: Unc. Ret: Unc. AH: Garage Sup. R=6.0, 106.4 ft ☐
  - b. N/A ☐

12. Cooling systems
  - a. Central Unit Cap: 32.6 kBtu/hr  
SEER: 13.00 ☐
  - b. N/A ☐
  - c. N/A ☐
13. Heating systems
  - a. Electric Heat Pump Cap: 35.0 kBtu/hr  
HSPF: 8.00 ☐
  - b. N/A ☐
  - c. N/A ☐
14. Hot water systems
  - a. Electric Resistance Cap: 40.0 gallons  
EF: 0.92 ☐
  - b. N/A ☐
  - c. Conservation credits  
(HR-Heat recovery, Solar  
DHP-Dedicated heat pump) ☐
15. HVAC credits  
(CF-Ceiling fan, CV-Cross ventilation,  
HF-Whole house fan,  
PT-Programmable Thermostat,  
MZ-C-Multizone cooling,  
MZ-H-Multizone heating) ☐

Glass/Floor Area: 0.12

Total as-built points: 24391

Total base points: 25028

## PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: [Signature]

DATE: 12/27/16

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: \_\_\_\_\_

DATE: \_\_\_\_\_

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: \_\_\_\_\_

DATE: \_\_\_\_\_



<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

# SUMMER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt			Area X SPM X SOF = Points			
.18	1438.0	20.04	5187.2	Double, Clear	SE	1.5	6.0	50.0	42.75	0.88	1888.3
				Double, Clear	SW	1.5	6.0	43.3	40.16	0.89	1539.0
				Double, Clear	NE	1.5	6.0	15.0	29.56	0.92	408.1
				Double, Clear	NE	1.5	8.0	42.0	29.56	0.96	1191.6
				Double, Clear	NW	1.5	6.0	25.0	25.97	0.93	600.9
				As-Built Total:			175.3			5628.0	
WALL TYPES Area X BSPM = Points				Type	R-Value			Area X SPM = Points			
Exterior	1770.3	1.70	3009.5	Concrete, Int Insul, Exterior	5.0			1770.3	1.00	1770.3	
Adjacent	260.0	0.70	182.0	Frame, Wood, Adjacent	11.0			260.0	0.70	182.0	
Base Total:		2030.3	3191.5	As-Built Total:			2030.3			1952.3	
DOOR TYPES Area X BSPM = Points				Type	Area X SPM = Points						
Exterior	21.0	4.10	86.1	Exterior Wood				21.0	6.10	128.1	
Adjacent	0.0	0.00	0.0								
Base Total:		21.0	86.1	As-Built Total:			21.0			128.1	
CEILING TYPES Area X BSPM = Points				Type	R-Value			Area X SPM X SCM = Points			
Under Attic	1438.0	1.73	2487.7	Under Attic	30.0			1438.0	1.73 X 1.00	2487.7	
Base Total:		1438.0	2487.7	As-Built Total:			1438.0			2487.7	
FLOOR TYPES Area X BSPM = Points				Type	R-Value			Area X SPM = Points			
Slab	196.7(p)	-37.0	-7277.9	Slab-On-Grade Edge Insulation	0.0			196.7(p)	-41.20	-8104.0	
Raised	0.0	0.00	0.0								
Base Total:			-7277.9	As-Built Total:			196.7			-8104.0	
INFILTRATION Area X BSPM = Points				Area X SPM = Points							
	1438.0	10.21	14682.0	1438.0 10.21 14682.0							

**SUMMER CALCULATIONS****Residential Whole Building Performance Method A - Details**

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT						
<b>Summer Base Points: 18356.6</b>				<b>Summer As-Built Points: 16774.1</b>						
Total Summer Points	X System Multiplier	=	Cooling Points	Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	=	Cooling Points
18356.6	0.4266		7830.9	16774	1.00	(1.09 x 1.147 x 1.00)	0.263	1.000		5505.8
				<b>16774.1</b>	<b>1.00</b>	<b>1.250</b>	<b>0.263</b>	<b>1.000</b>		<b>5505.8</b>

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang Ornt Len Hgt			Area X WPM X WOF = Points				
.18	1438.0	12.74	3297.6	Double, Clear	SE	1.5	6.0	50.0	14.71	1.10	806.1	
				Double, Clear	SW	1.5	6.0	43.3	16.74	1.06	768.4	
				Double, Clear	NE	1.5	6.0	15.0	23.57	1.01	355.8	
				Double, Clear	NE	1.5	8.0	42.0	23.57	1.00	991.9	
				Double, Clear	NW	1.5	6.0	25.0	24.30	1.00	609.3	
				As-Built Total:						175.3		
WALL TYPES Area X BWPM = Points				Type	R-Value			Area X WPM = Points				
Exterior	1770.3	3.70	6550.1	Concrete, Int Insul, Exterior	5.0			1770.3	5.70	10090.7		
Adjacent	260.0	3.60	936.0	Frame, Wood, Adjacent	11.0			260.0	3.60	936.0		
Base Total:		2030.3	7486.1	As-Built Total:						2030.3	11026.7	
DOOR TYPES Area X BWPM = Points				Type				Area X WPM = Points				
Exterior	21.0	8.40	176.4	Exterior Wood				21.0	12.30	258.3		
Adjacent	0.0	0.00	0.0									
Base Total:		21.0	176.4	As-Built Total:						21.0	258.3	
CEILING TYPES Area X BWPM = Points				Type	R-Value			Area X WPM X WCM = Points				
Under Attic	1438.0	2.05	2947.9	Under Attic	30.0			1438.0	2.05 X 1.00	2947.9		
Base Total:		1438.0	2947.9	As-Built Total:						1438.0	2947.9	
FLOOR TYPES Area X BWPM = Points				Type	R-Value			Area X WPM = Points				
Slab	196.7(p)	8.9	1750.6	Slab-On-Grade Edge Insulation	0.0			196.7(p)	18.80	3698.0		
Raised	0.0	0.00	0.0									
Base Total:			1750.6	As-Built Total:						196.7	3698.0	
INFILTRATION Area X BWPM = Points							Area X WPM = Points					
		1438.0	-0.59	-848.4					1438.0	-0.59	-848.4	

# WINTER CALCULATIONS

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT						
Winter Base Points: 14810.2				Winter As-Built Points: 20614.0						
Total Winter Points	X System Multiplier	= Heating Points		Total Component (System - Points)	X Cap Ratio (DM x DSM x AHU)	X Duct Multiplier	X System Multiplier	X Credit Multiplier	= Heating Points	
14810.2	0.6274	9291.9		(sys 1: Electric Heat Pump 35000 btuh ,EFF(8.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0 20614.0 1.000 (1.069 x 1.169 x 1.00) 0.426 1.000 10980.4 <b>20614.0 1.00 1.250 0.426 1.000 10980.4</b>						

**WATER HEATING & CODE COMPLIANCE STATUS**

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

BASE				AS-BUILT					
WATER HEATING									
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X Tank Ratio	Multiplier X Credit	= Total Multiplier
3		2635.00	7905.0	40.0	0.92	3	1.00	2635.00	1.00 7905.0
				As-Built Total:					7905.0

CODE COMPLIANCE STATUS													
BASE					AS-BUILT								
Cooling Points	+	Heating Points	+	Hot Water Points	=	Total Points	Cooling Points	+	Heating Points	+	Hot Water Points	=	Total Points
7831		9292		7905		25028	5506		10980		7905		24391

**PASS**

# Code Compliance Checklist

## Residential Whole Building Performance Method A - Details

ADDRESS: Lot: , Sub: , Plat: , , ,

PERMIT #:

**6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST**

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

**6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)**

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

**ESTIMATED ENERGY PERFORMANCE SCORE\* = 83.7**

**The higher the score, the more efficient the home.**

mangrum construction, Lot: , Sub: , Plat: , , ,

1. New construction or existing	New	___	12. Cooling systems	
2. Single family or multi-family	Single family	___	a. Central Unit	Cap: 32.6 kBtu/hr
3. Number of units, if multi-family	1	___		SEER: 13.00
4. Number of Bedrooms	3	___	b. N/A	___
5. Is this a worst case?	Yes	___	c. N/A	___
6. Conditioned floor area (ft <sup>2</sup> )	1438 ft <sup>2</sup>	___		___
7. Glass type <sup>1</sup> and area: (Label reqd. by 13-104.4.5 if not default)		___	13. Heating systems	
a. U-factor:	Description Area		a. Electric Heat Pump	Cap: 35.0 kBtu/hr
(or Single or Double DEFAULT)	7a. (Dble Default) 175.3 ft <sup>2</sup>	___		HSPF: 8.00
b. SHGC:		___	b. N/A	___
(or Clear or Tint DEFAULT)	7b. (Clear) 175.3 ft <sup>2</sup>	___	c. N/A	___
8. Floor types		___		___
a. Slab-On-Grade Edge Insulation	R=0.0, 196.7(p) ft	___	14. Hot water systems	
b. N/A	___	___	a. Electric Resistance	Cap: 40.0 gallons
c. N/A	___	___		EF: 0.92
9. Wall types		___	b. N/A	___
a. Concrete, Int Insul, Exterior	R=5.0, 1770.3 ft <sup>2</sup>	___	c. Conservation credits	___
b. Frame, Wood, Adjacent	R=11.0, 260.0 ft <sup>2</sup>	___	(HR-Heat recovery, Solar	
c. N/A	___	___	DHP-Dedicated heat pump)	
d. N/A	___	___	15. HVAC credits	___
e. N/A	___	___	(CF-Ceiling fan, CV-Cross ventilation,	
10. Ceiling types		___	HF-Whole house fan,	
a. Under Attic	R=30.0, 1438.0 ft <sup>2</sup>	___	PT-Programmable Thermostat,	
b. N/A	___	___	MZ-C-Multizone cooling,	
c. N/A	___	___	MZ-H-Multizone heating)	
11. Ducts		___		
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 106.4 ft	___		
b. N/A	___	___		

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Address of New Home: \_\_\_\_\_

City/FL Zip: \_\_\_\_\_



*\*NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at [www.fsec.ucf.edu](http://www.fsec.ucf.edu) for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

<sup>1</sup> Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.  
EnergyGauge® (Version: FLRCSB v4.21)

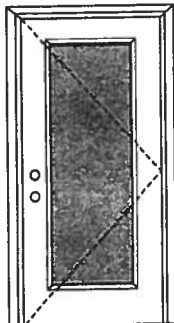
**X**

Glazed Inswing Unit

COP-WL-JH4141-02

## WOOD-EDGE STEEL DOORS

### APPROVED ARRANGEMENT:

**Note:**

Units of other sizes are covered by this report as long as the panel used does not exceed 3'0" x 6'8".

Warnock Hersey



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITSAWH website ([www.itsamka.com](http://www.itsamka.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

**Single Door**

Maximum unit size = 3'0" x 6'8"

**Design Pressure**

**+40.5/-40.5**

Limited water unless special threshold design is used.

**Large Missile Impact Resistance**

**Hurricane protective system (shutters) is REQUIRED.**

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

### MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0001-02 and MAD-WL-MA0041-02.

### MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0001-02.

### APPROVED DOOR STYLES:

#### 1/4 GLASS:



100 Series



133, 135 Series



136 Series



680 Series



822 Series

#### 1/2 GLASS:



105 Series\*



106, 160 Series\*



129 Series\*



200 Series\*

12 R/L, 23 R/L, 24 R/L  
Series\*

107 Series\*



108 Series



304 Series

\*This glass kit may also be used in the following door styles: 5-panel; 5-panel with scroll; Eyebrow 5-panel; Eyebrow 5-panel with scroll.

1

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**EntrySystems™**

June 17, 2002  
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Premium Quality Doors



Exclusively from

**Masonite®**

Masonite International Corporation

**X**

Glazed Inswing Unit

COP-WL-JH4141-02

**WOOD-EDGE STEEL DOORS****APPROVED DOOR STYLES:****3/4 GLASS:**

404 Series



410 Series



450 Series

**FULL GLASS:**

109 Series

114, 120, 122  
Series

152 Series



149 Series



300 Series

**CERTIFIED TEST REPORTS:**

NCTL 210-1897-7, 8, 9, 10, 11, 12; NCTL 210-1861-4, 5, 6, 10, 11, 12; NCTL 210-2185-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum threshold.

**PRODUCT COMPLIANCE LABELING:**

TESTED IN  
ACCORDANCE WITH  
MIAMI-DADE BCCO PA202

COMPANY NAME  
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

State of Florida, Professional Engineer  
Kurt Balthazor, P.E. – License Number 56533



Test Data Review Certificate #3026447A and COP/Test Report Validation Matrix #3026447A-001 provides additional information - available from the ITS/WH website ([www.itswh.com](http://www.itswh.com)), the Masonite website ([www.masonite.com](http://www.masonite.com)) or the Masonite technical center.

2

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**AAMA/NWWDA 101/I.S.2-97  
TEST REPORT SUMMARY**

**Rendered to:**

**MI HOME PRODUCTS, INC.**

**SERIES/MODEL: 650 Fin  
TYPE: Aluminum Single Hung Window**

Title of Test	Results
Rating	H-R40 52 x 72
Overall Design Pressure	+45.0 psf -47.2 psf
Operating Force	11 lb max.
Air Infiltration	0.13 cfm/ft <sup>2</sup>
Water Resistance	6.00 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

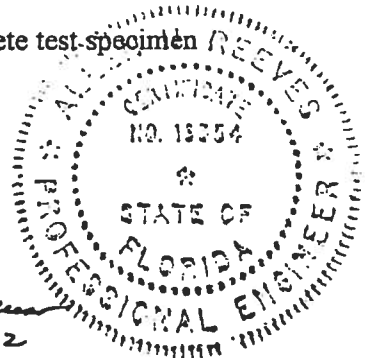
Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:nlb

*Allen H. Reeves*  
1 APRIL 2002





Architectural Testing

**AAMA/NWWDA 101/I.S.2-97 TEST REPORT**

Rendered to

MI HOME PRODUCTS, INC.  
650 West Market Street  
P.O. Box 370  
Gratz, Pennsylvania 17030-0370

Report No: 01-41134.01  
Test Date: 03/07/02  
Report Date: 03/26/02  
Expiration Date: 03/07/06

**Project Summary:** Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on Series/Model 650 Fin, aluminum single hung window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a H-R40 52 x 72 rating.

**Test Specification:** The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

**Test Specimen Description**

**Series/Model:** 650 Fin

**Type:** Aluminum Single Hung Window

**Overall Size:** 4' 4-1/4" wide by 6' 0-3/8" high

**Active Sash Size:** 4' 1-3/4" wide by 3' 0-5/8" high

**Daylight Opening Size:** 3' 11-3/8" wide by 2' 9-1/2" high

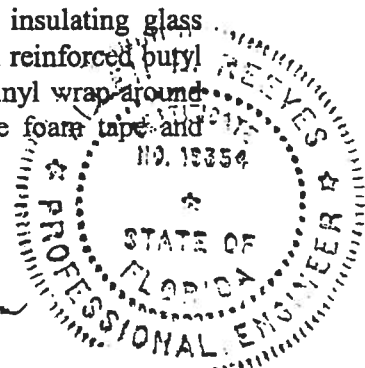
**Screen Size:** 4' 0-1/4" wide by 2' 11-1/8" high

**Finish:** All aluminum was white.

**Glazing Details:** The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

130 Derry Court  
York, PA 17402-9405  
phone: 717.764.7700  
fax: 717.764.4129  
www.archtest.com

*Allen M. Ruman*  
1 APRIL 2002





**Test Specimen Description: (Continued)**

**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	1 Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" x 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam-filled vinyl bulb seal	1 Row	Active sash, bottom rail

**Frame Construction:** The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was secured to the frame utilizing two 1-1/4" screws.

**Sash Construction:** The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each jamb screw boss.

**Screen Construction:** The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper		Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail

*Allen H. Reeves*  
1 APRIL 2002





**Test Specimen Description: (Continued)**

**Drainage:** Sloped sill

**Reinforcement:** No reinforcement was utilized.

**Installation:** The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

**Test Results:**

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	11 lbs	30 lbs max
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup> max

*Note #1: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.*

	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	0.42"* 0.43"*	0.26" max. 0.26" max.

*\*Exceeds L/175 for deflection, but passes all other test requirements.*

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 38.9 psf (positive) @ 52.1 psf (negative)	0.02" 0.02"	0.18" max. 0.18" max.
---------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------	--------------------------

*Allen H. Reeves*  
1 APRIL 2002





**Test Specimen Description: (Continued)**

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

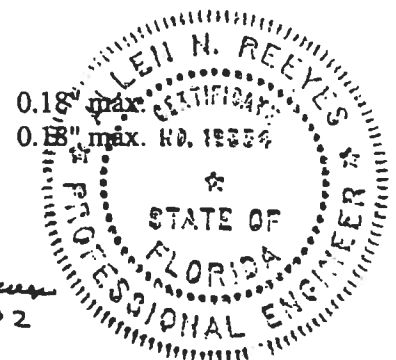
**Optional Performance**

4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.

*\*Exceeds L/175 for deflection, but passes all other test requirements.*

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
@ 67.5 psf (positive)	0.05"	0.18" max.
@ 70.8 psf (negative)	0.05"	0.18" max.

*Allen N. Reeves*  
1 APRIL 2002





Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess  
Technician

MAH:nlb  
01-41134.01

Allen N. Reeves, P.E.  
Director - Engineering Services  
1 APRIL 2002







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### Licensee Details

#### Licensee Information

**Name:** **MANGRUM, DAVID EARL (Primary Name)**  
**MANGRUM CONSTRUCTION INC (DBA Name)**  
**Main Address:** **634 S.E. MAYHALL TERR.**  
**LAKE CITY Florida 32025**  
**County:** **COLUMBIA**

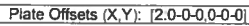
**License Mailing:**
**LicenseLocation:**

#### License Information

**License Type:** **Registered Building Contractor**  
**Rank:** **Reg Building**  
**License Number:** **RB29003100**  
**Status:** **Current,Active**  
**Licensure Date:** **07/22/2002**  
**Expires:** **08/31/2007**

**Special Qualifications** **Qualification Effective**  
**Bldg Code Core Course Credit**  
**Qualified Business License** **02/20/2004**  
**Required**

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**LUMBER**  
TOP CHORD 2 X 4 SYP No.2  
BOT CHORD 2 X 4 SYP No.2

<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=276/0-8-0, 3=-100/Mechanical, 4=14/Mechanical  
Max Horz 2=58(load case 3)  
Max Uplift2=-272(load case 3), 3=-100(load case 1)  
Max Grav 2=276(load case 1), 3=124(load case 3), 4=14(load case 1)

**FORCES (lb)** - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/33, 2-3=-54/55  
 BOT CHORD 2-4=0/0

## NOTES

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 272 lb uplift at joint 2 and 100 lb uplift at joint 3.

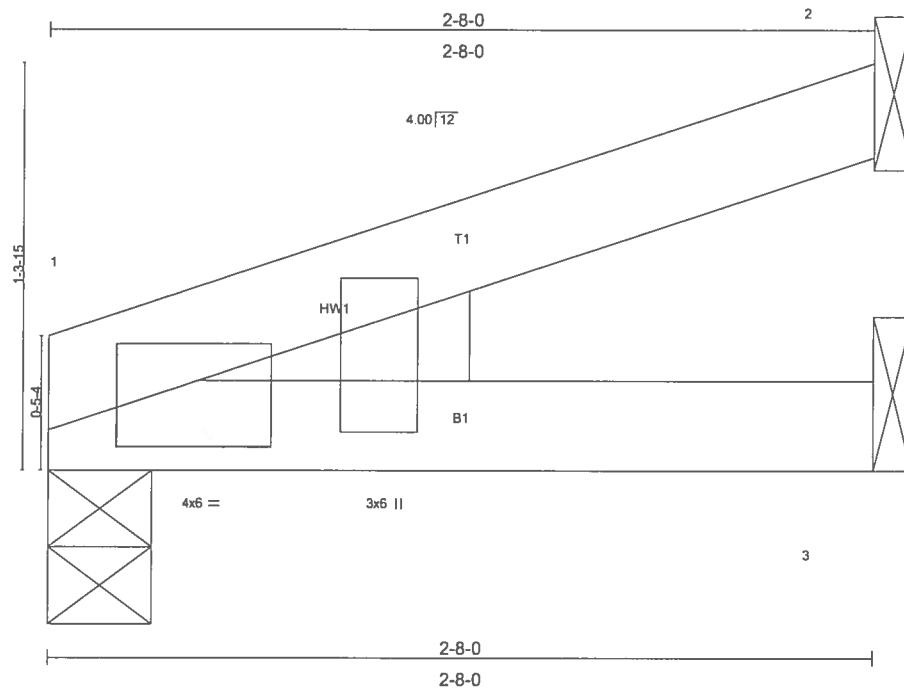
LOAD CASE(S) Standard

**APRIL 19, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**

Job <b>L159972</b>	Truss <b>CJ2</b>	Truss Type <b>JACK</b>	Qty <b>1</b>	Ply <b>1</b>	Job Reference (optional)
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Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 MiTek Industries, Inc. Mon Apr 17 13:46:13 2006 Page 1



Scale = 1:7.2

Plate Offsets (X,Y): [1:0-2-10,0-0-10], [1:0-0-1,0-11-5]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.08	Vert(LL)	-0.00	1-3	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.04	Vert(TL)	-0.00	1-3	>999	180		
BCLL 10.0	Rep Stress Incr	YES	WB 0.00	Horz(TL)	-0.00	2	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002		(Matrix)							
									Weight: 10 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEDGE  
 Left: 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 2=66/Mechanical, 3=37/Mechanical, 1=102/0-4-0  
 Max Horz 1=46(load case 3)  
 Max Uplift 2=-56(load case 3), 1=-29(load case 3)

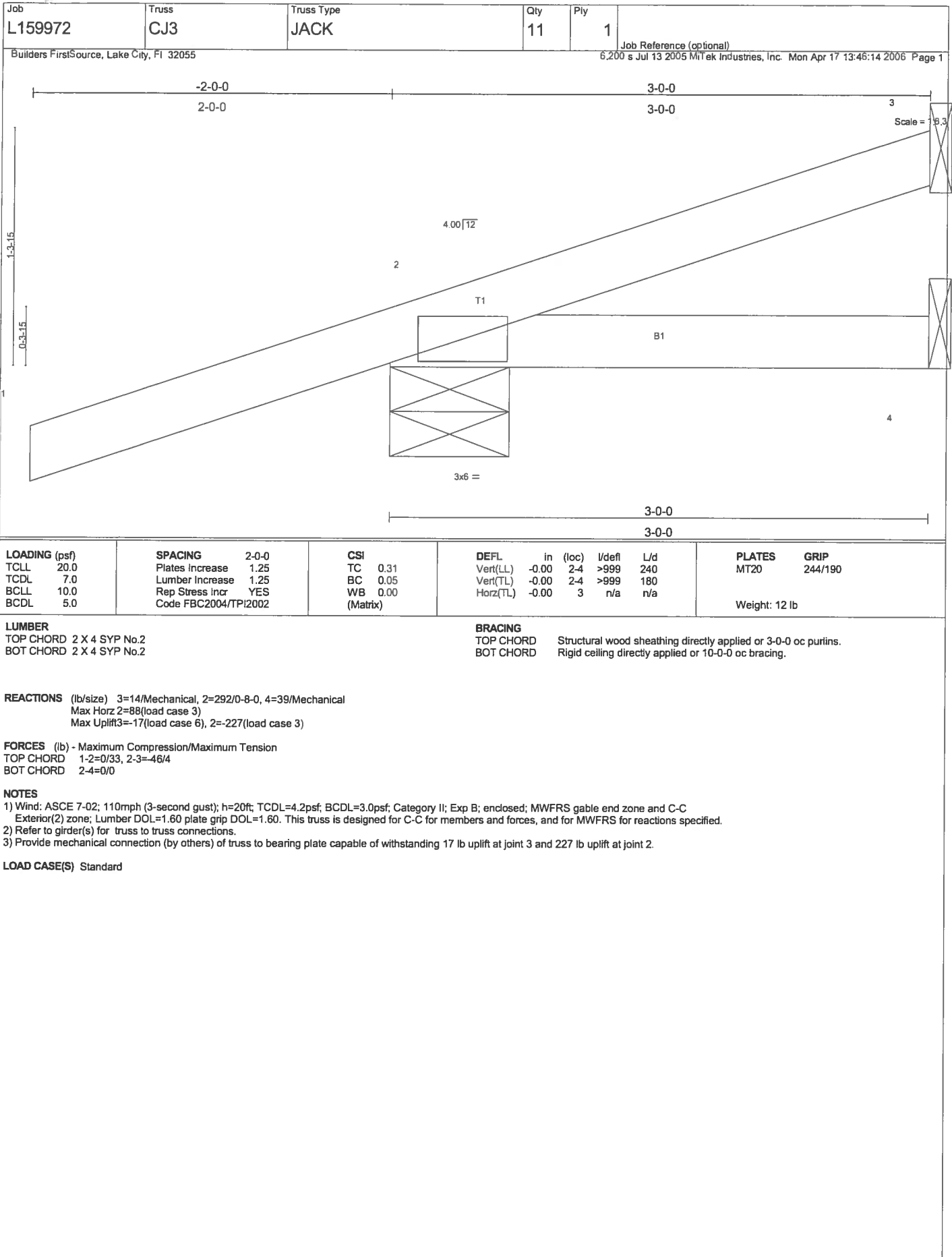
**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-41/20  
 BOT CHORD 1-3=0/0

**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 2 and 29 lb uplift at joint 1.

LOAD CASE(S) Standard

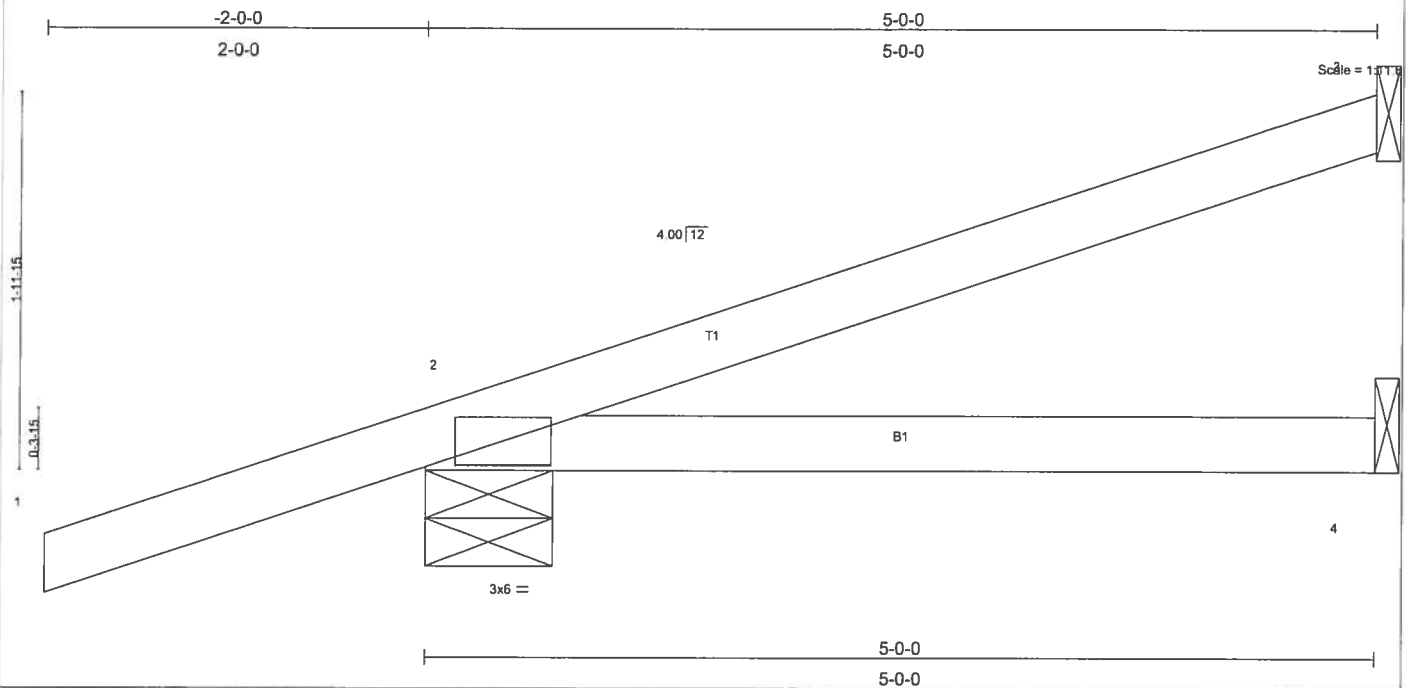




Job <b>L159972</b>	Truss <b>EJ5</b>	Truss Type <b>MONO TRUSS</b>	Qty <b>3</b>	Ply <b>1</b>	Job Reference (optional)
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Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 Mitek Industries, Inc. Mon Apr 17 13:46:15 2006 Page 1



LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.15	Vert(LL) -0.02 2-4 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.00	Vert(TL) -0.04 2-4 >999 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) -0.00 3 n/a n/a		
	Code FBC2004/TPI2002			Weight: 19 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (lb/size) 3=92/Mechanical, 2=351/0-8-0, 4=69/Mechanical  
 Max Horz 2=118(load case 3)  
 Max Uplift 3=-65(load case 3), 2=-226(load case 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension

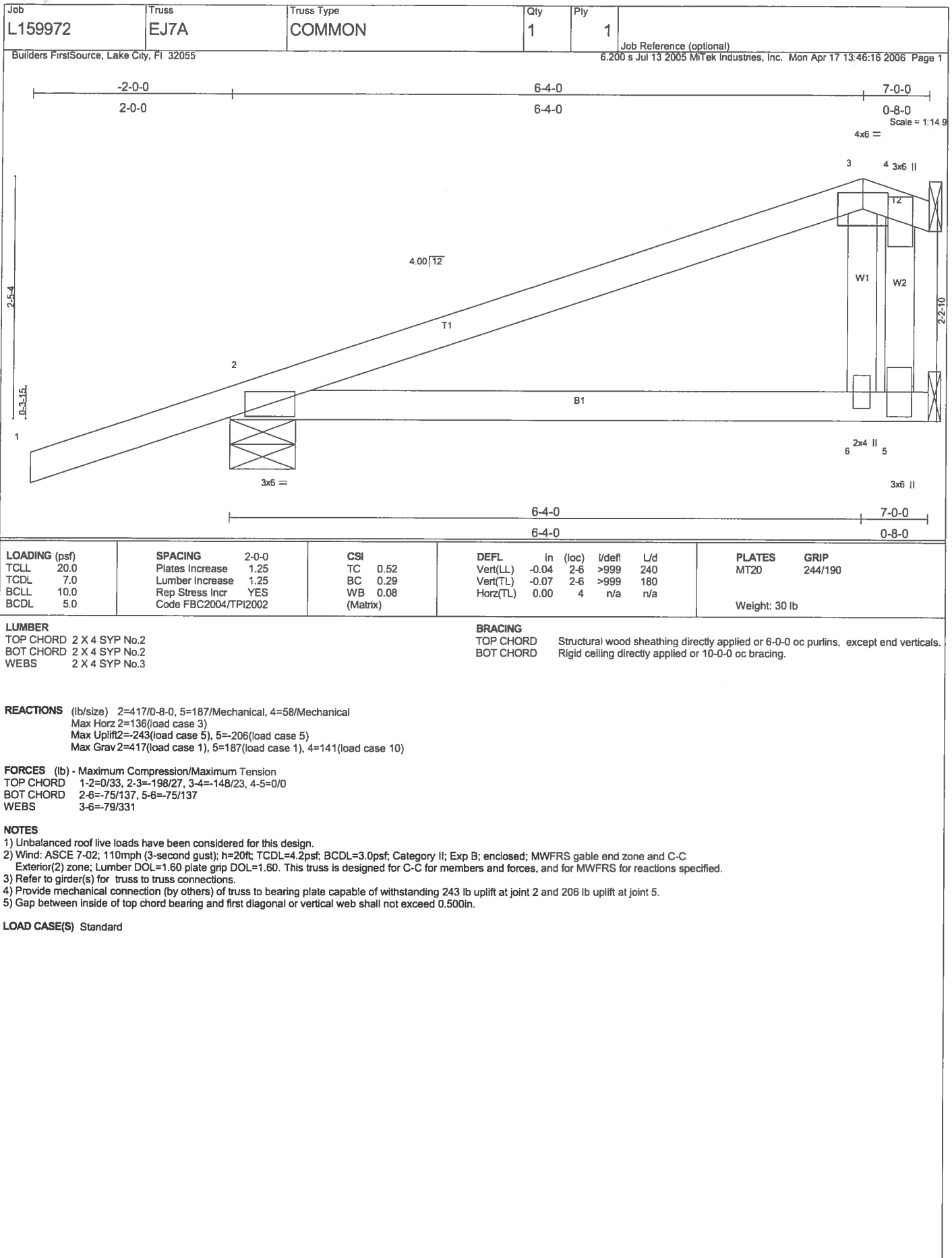
TOP CHORD 1-2=0/33, 2-3=-53/23  
 BOT CHORD 2-4=0/0

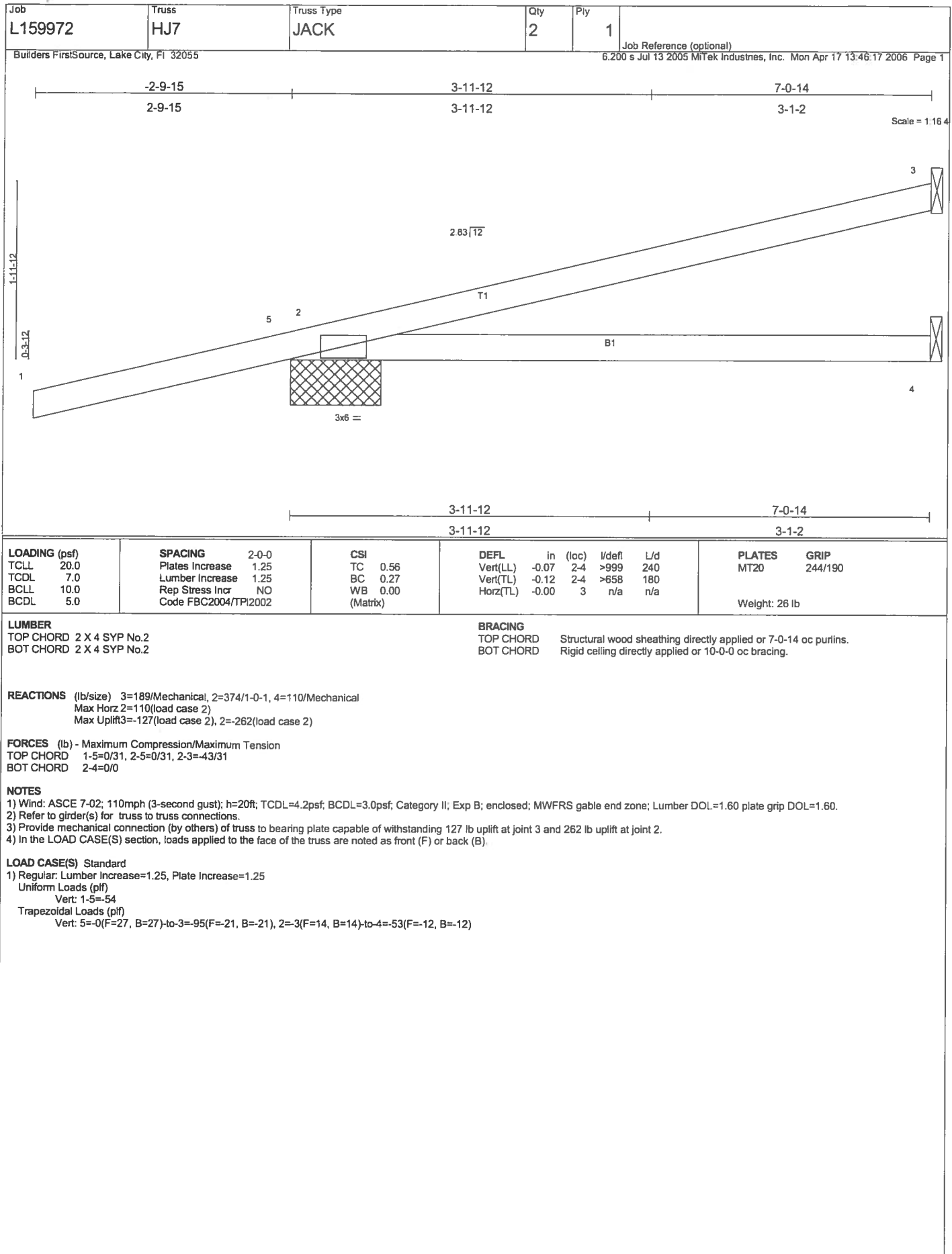
**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 3 and 226 lb uplift at joint 2.

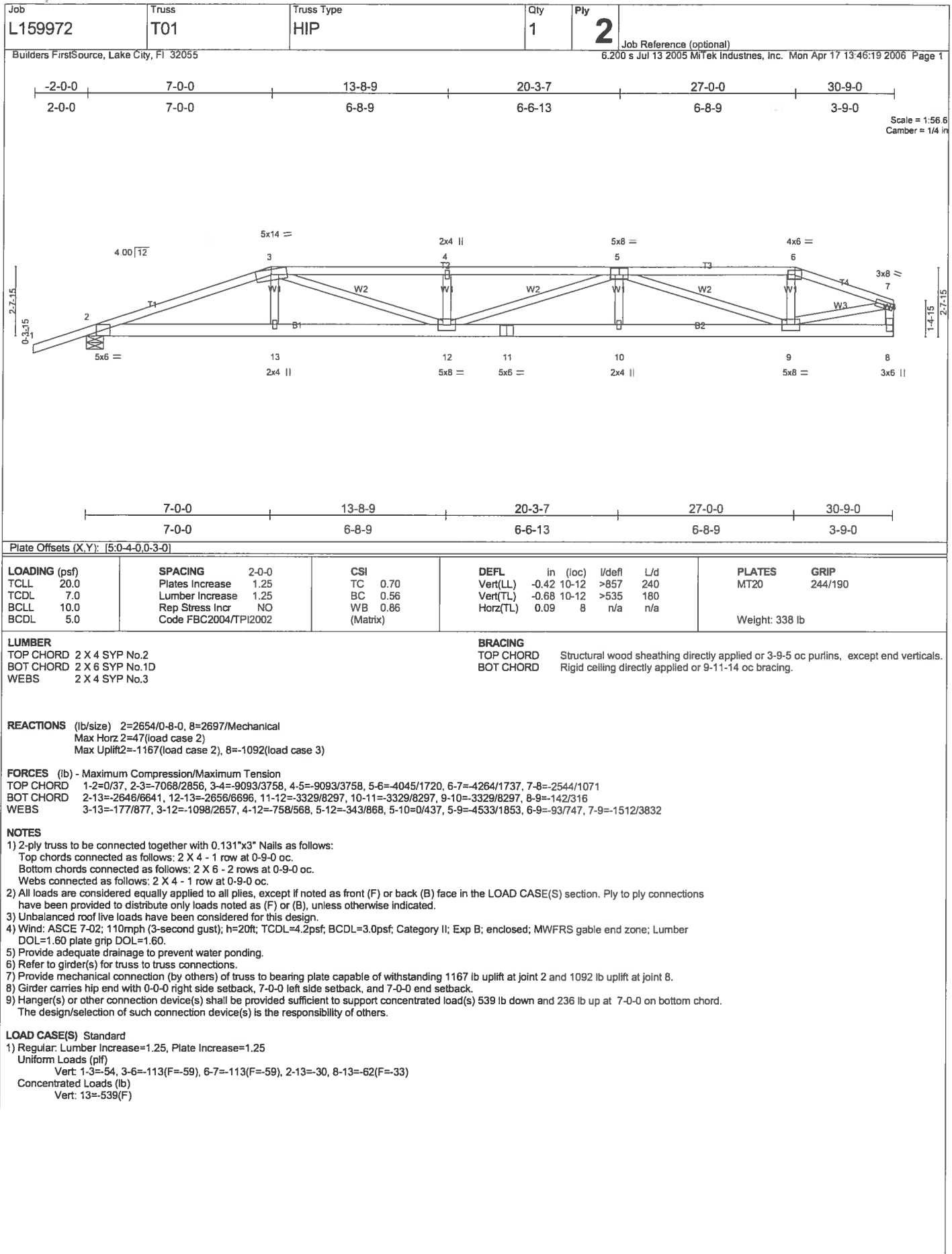
**LOAD CASE(S)** Standard

**APRIL 19, 2006 TRUSS DESIGN ENGINEER:  
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987  
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196  
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**





**APRIL 19, 2006 TRUSS DESIGN ENGINEER:**  
**THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987**  
**STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196**  
**16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**



Job <b>L159972</b>	Truss <b>T02</b>	Truss Type <b>HIP</b>	Qty <b>1</b>	Ply <b>1</b>	Job Reference (optional)
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Builders FirstSource, Lake City, FL 32055

6.200 s Jul 13 2005 MTEK Industries, Inc. Mon Apr 17 13:46:19 2006 Page 1

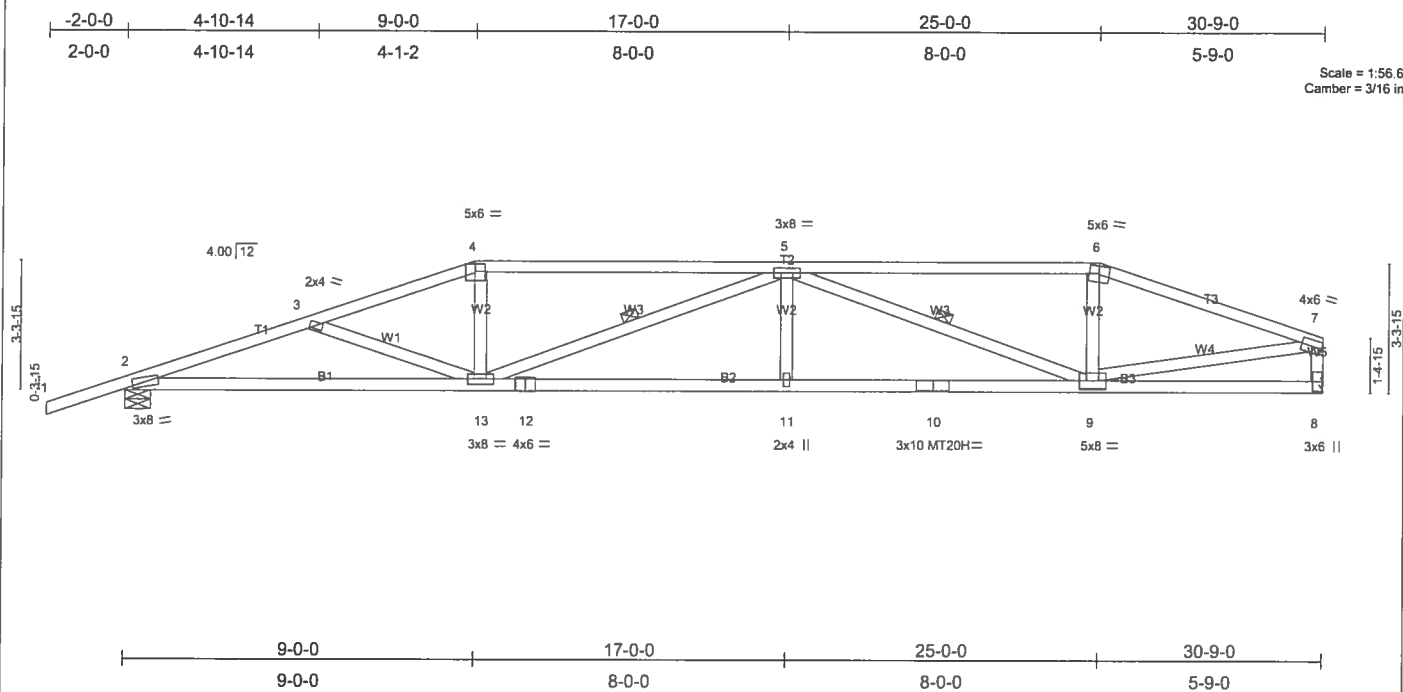


Plate Offsets (X,Y): [2-0-2-9-0-0-7]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	In	(loc)	I/def	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.48	Vert(LL)	-0.32	11-13	>999	240	MT20	244/190
TCDL 7.0	Lumber Increase	1.25	BC 0.78	Vert(TL)	-0.52	11-13	>697	180	MT20H	187/143
BCLL 10.0	Rep Stress Incr	YES	WB 0.60	Horz(TL)	0.13	8	n/a	n/a		
BCDL 5.0	Code FBC2004/TP12002		(Matrix)							
									Weight: 148 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 5-7-2 oc bracing.  
 WEBS 1 Row at midpt 5-13, 5-9

**REACTIONS** (lb/size) 2=1402/0-8-0, 8=1267/Mechanical

Max Horz 2=122(load case 3)

Max Uplift 2=606(load case 3), 8=459(load case 4)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=3031/1216, 3-4=-2837/1125, 4-5=-2702/1114, 5-6=-2042/879, 6-7=-2180/880, 7-8=-1183/522

BOT CHORD 2-13=-1141/2815, 12-13=-1259/3253, 11-12=-1259/3253, 10-11=-1259/3253, 9-10=-1259/3253, 8-9=-96/189

WEBS 3-13=-153/162, 4-13=-78/524, 5-13=-728/301, 5-11=0/232, 5-9=-1375/525, 6-9=-12/349, 7-9=-702/1875

**NOTES**

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

3) Provide adequate drainage to prevent water ponding.

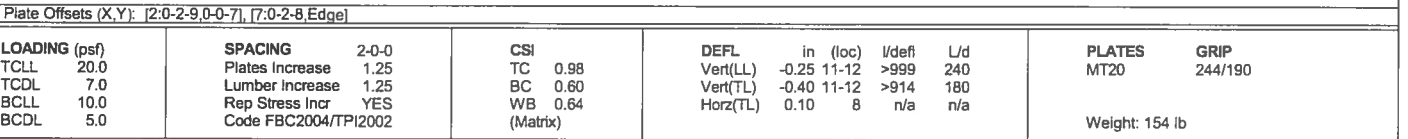
4) All plates are MT20 plates unless otherwise indicated.

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 606 lb uplift at joint 2 and 459 lb uplift at joint 8.

**LOAD CASE(S)** Standard

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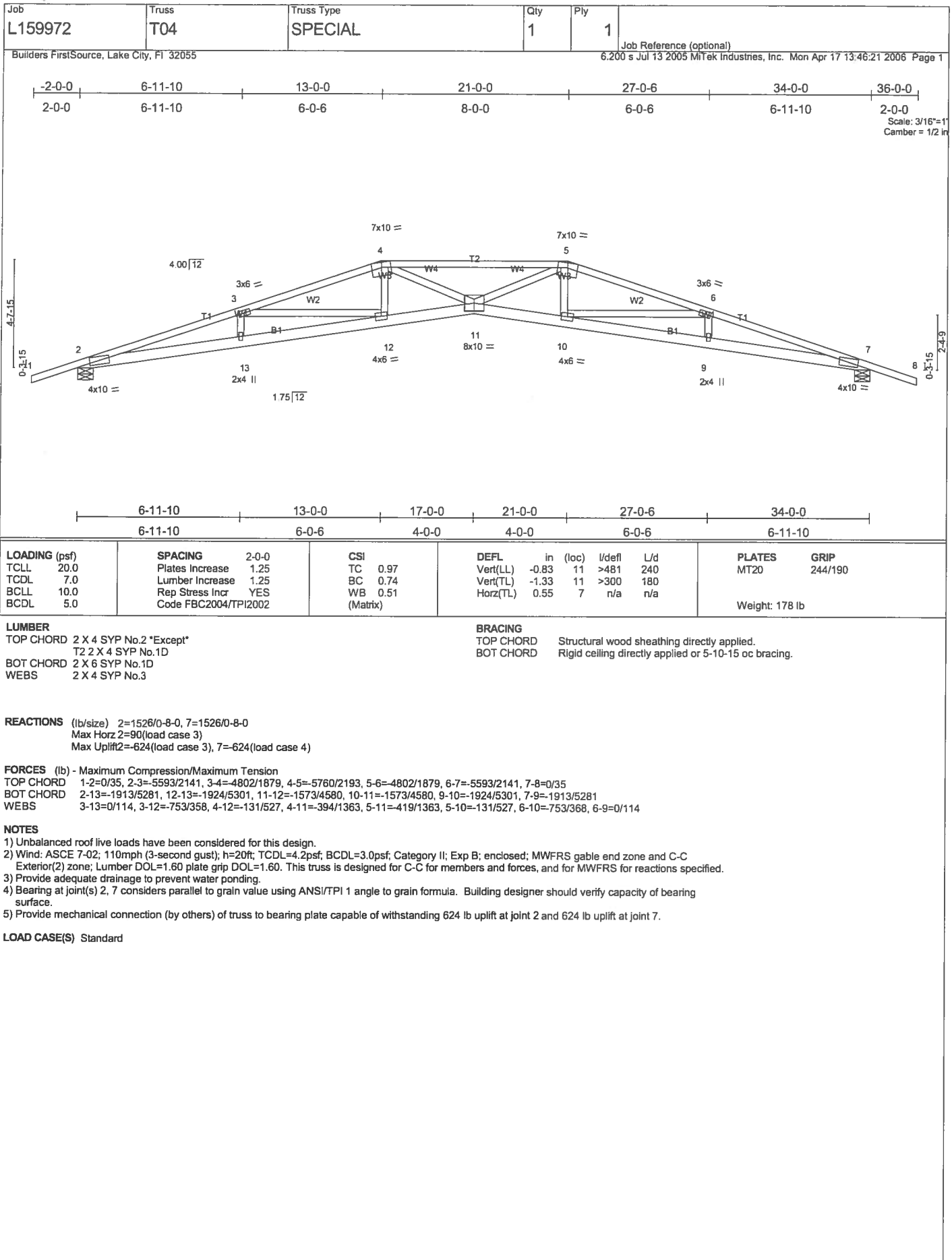


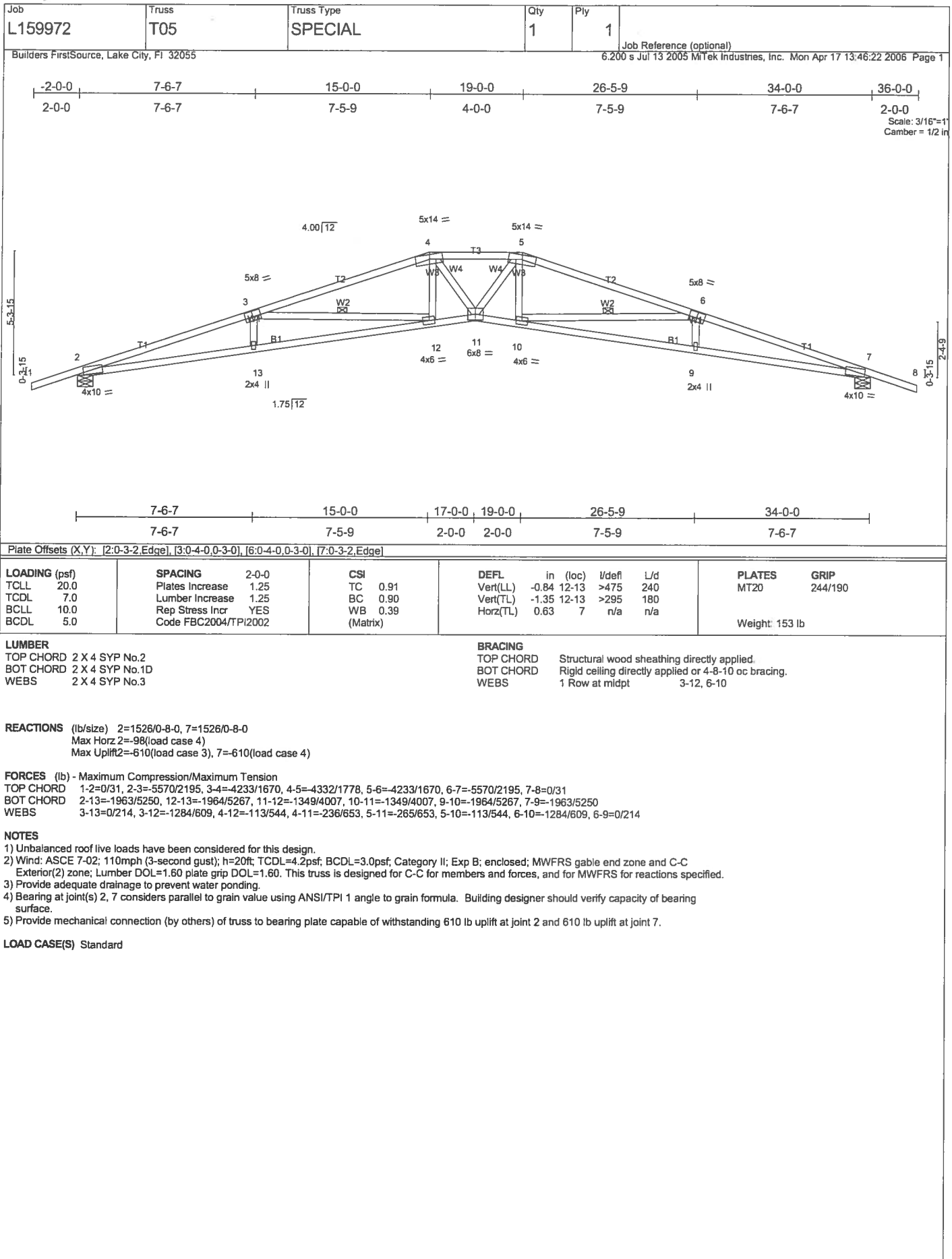
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 3-4-6 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 5-10-13 oc bracing.

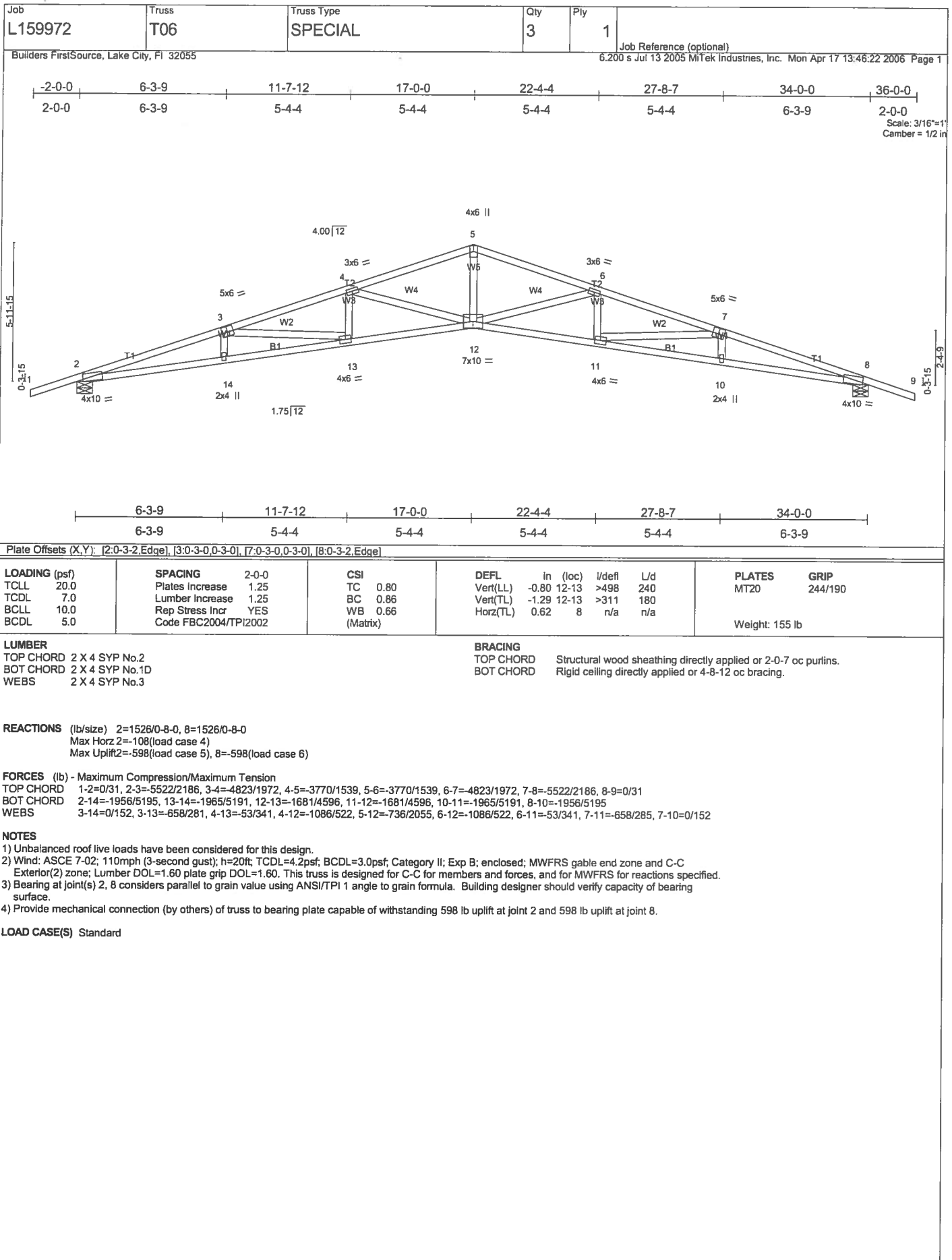
**FORCES (lb) - Maximum Compression/Maximum Tension**  
 TOP CHORD 1-2=0/33, 2-3=31/19/211, 3-4=2569/1070, 4-5=2608/1128, 5-6=2608/1128, 6-7=2212/910, 7-8=1138/540  
 BOT CHORD 2-14=-1135/2887, 13-14=-1135/2887, 12-13=-1135/2887, 11-12=-928/2414, 10-11=-782/2032, 9-10=-782/2032, 8-9=-198/413  
 WEBS 3-14=0/156, 3-12=-531/224, 4-12=-56/369, 4-11=-148/382, 5-11=-338/222, 6-11=-297/793, 6-9=-46/138, 7-9=-596/1639

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 599 lb uplift at joint 2 and 449 lb uplift at joint 8.

LOAD CASE(S) Standard







Job <b>L159972</b>	Truss <b>T07</b>	Truss Type <b>SPECIAL</b>	Qty <b>3</b>	Ply <b>1</b>	Job Reference (optional)
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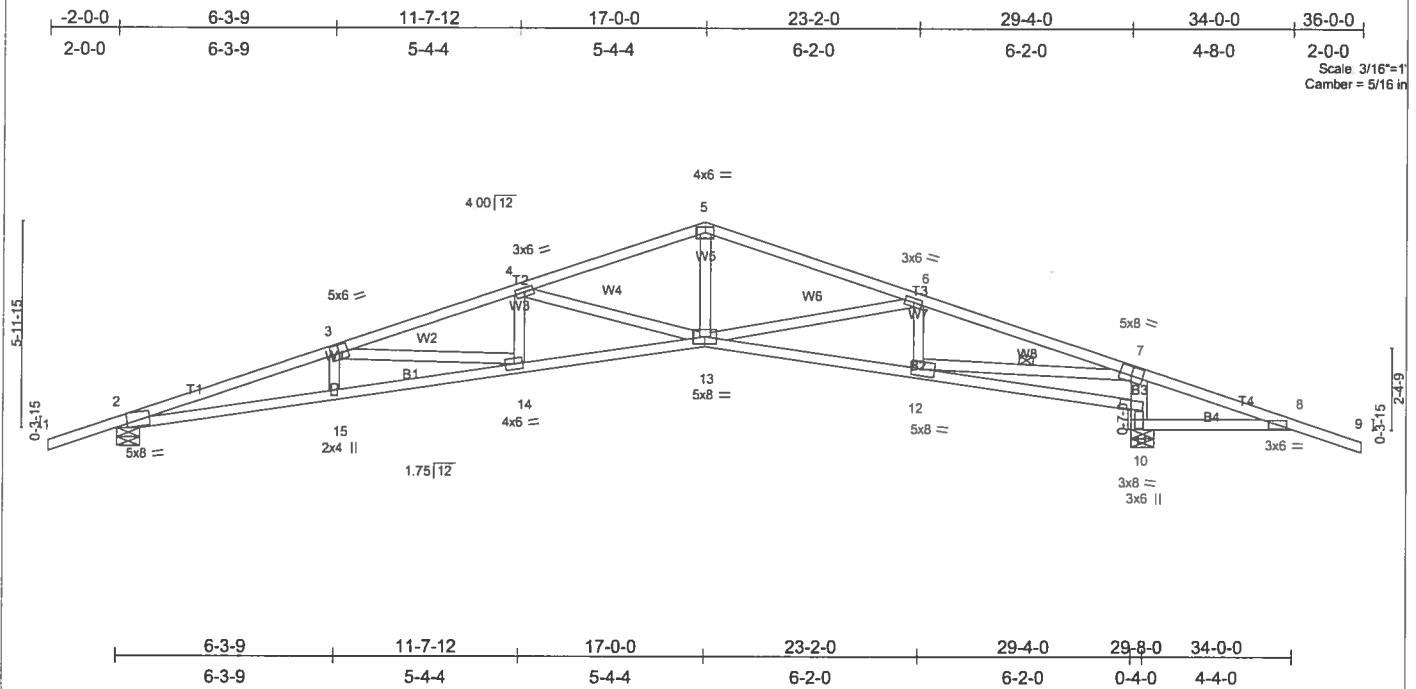


Plate Offsets (X,Y): [2:0-3-11, Edge], [3:0-3-0, 0-3-0], [7:0-4-0, 0-3-0]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCOL 7.0	Plates Increase 1.25	BC 0.95	Vert(LL) -0.49 14-15 >710 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.60	Vert(TL) -0.79 14-15 >442 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.33 10 n/a n/a		
	Code FBC2004/TPI2002			Weight: 159 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2 "Except"  
 B3 2 X 6 SYP No.1D  
 WEBS 2 X 4 SYP No.3 "Except"  
 W8 2 X 4 SYP No.2

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-6-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 7-12

**REACTIONS** (lb/size) 2=1310/0-8-0, 10=1752/0-8-0

Max Horz 2=-108(load case 4)

Max Uplift 2=-542(load case 5), 10=-792(load case 6)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/31, 2-3=4508/1611, 3-4=3707/1339, 4-5=-2644/899, 5-6=-2652/895, 6-7=-2573/705, 7-8=-1012/911, 8-9=0/33

BOT CHORD 2-15=-1409/4234, 14-15=-1417/4227, 13-14=-1072/3526, 12-13=-568/2423, 11-12=-805/1363, 10-11=-1683/1010, 7-11=-1449/744,

8-10=-819/1039

WEBS 3-15=0/162, 3-14=-722/342, 4-14=-63/348, 4-13=-1093/526, 5-13=-327/1313, 6-13=-132/202, 6-12=-345/349, 7-12=-1767/3097

**NOTES**

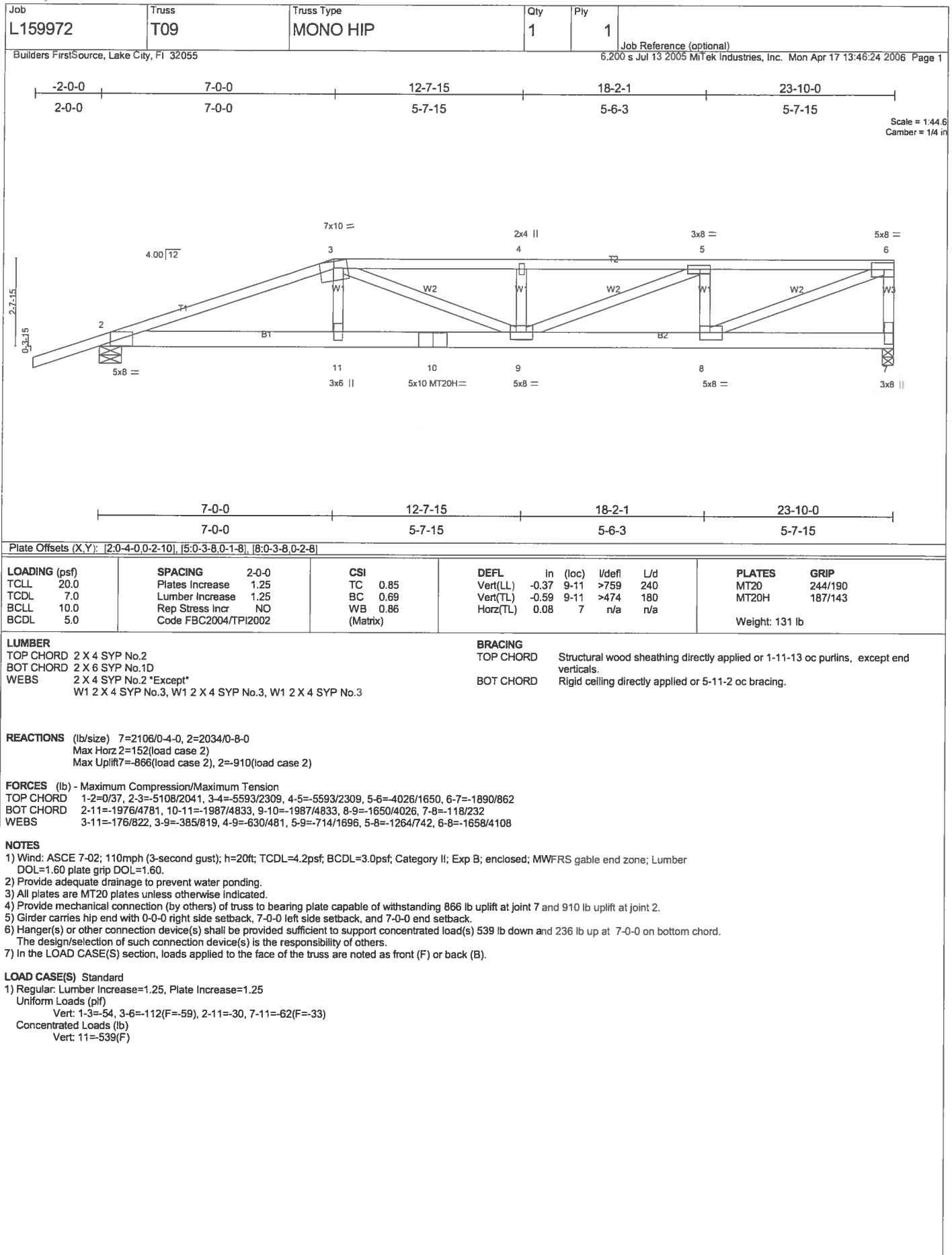
1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; cantilever right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

3) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 542 lb uplift at joint 2 and 792 lb uplift at joint 10.

**LOAD CASE(S)** Standard



Job <b>L159972</b>	Truss <b>T10</b>	Truss Type <b>MONO HIP</b>	Qty <b>1</b>	Ply <b>1</b>	Job Reference (optional)
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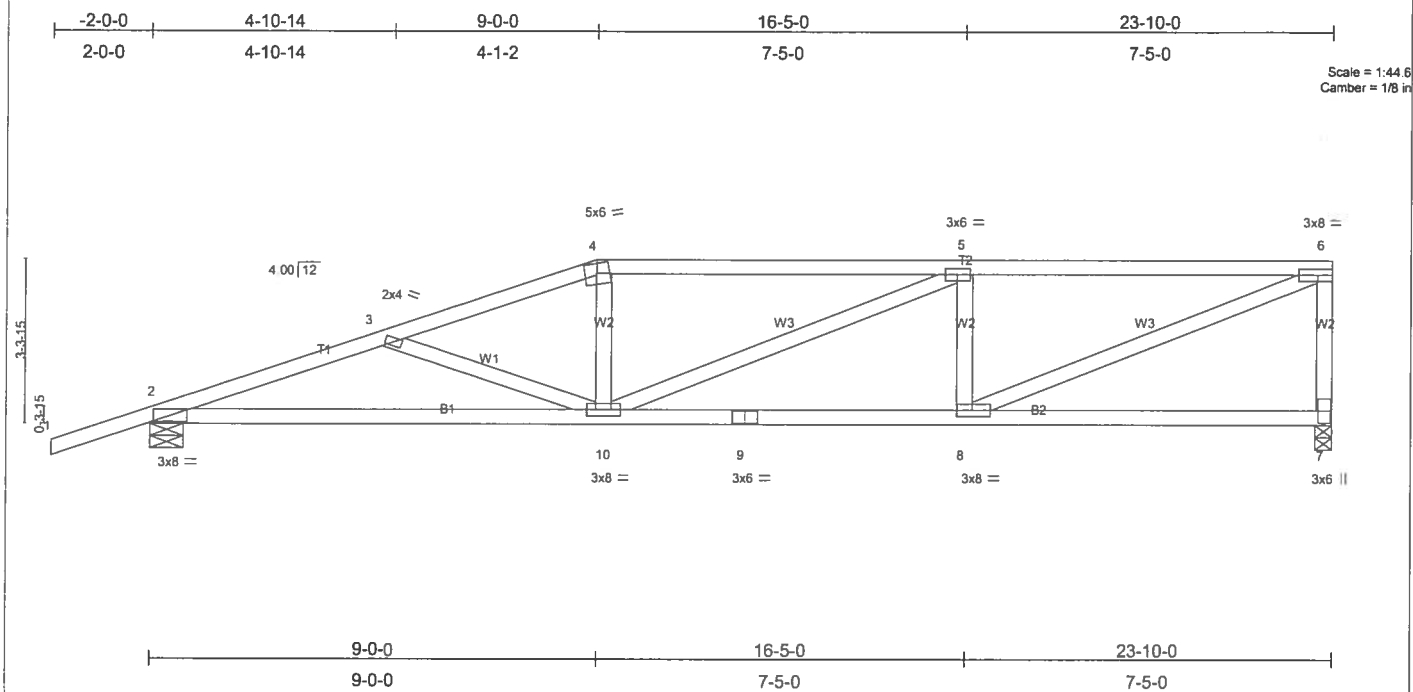


Plate Offsets (X,Y): [8-0-3-8,0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.57	Vert(LL) -0.19 2-10 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.76	Vert(TL) -0.32 2-10 >865 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.05 7 n/a n/a		
	Code FBC2004/TP12002			Weight: 116 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 4-1-2 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-6-14 oc bracing.

**REACTIONS** (lb/size) 7=975/0-4-0, 2=1113/0-8-0  
 Max Horz 2=181(load case 3)  
 Max Uplift 7=-372(load case 3), 2=-499(load case 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/33, 2-3=-2205/865, 3-4=-1963/748, 4-5=-1850/749, 5-6=-1718/698, 6-7=-860/406  
 BOT CHORD 2-10=-907/2043, 9-10=-698/1718, 8-9=-698/1718, 7-8=-41/110  
 WEBS 3-10=-218/181, 4-10=0/272, 5-10=-83/143, 5-8=-468/322, 6-8=-712/1744

**NOTES**

- 1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Provide adequate drainage to prevent water ponding.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 372 lb uplift at joint 7 and 499 lb uplift at joint 2.

**LOAD CASE(S)** Standard



Job <b>L159972</b>	Truss <b>T12</b>	Truss Type <b>HIP</b>	Qty <b>1</b>	Ply <b>1</b>	Job Reference (optional)
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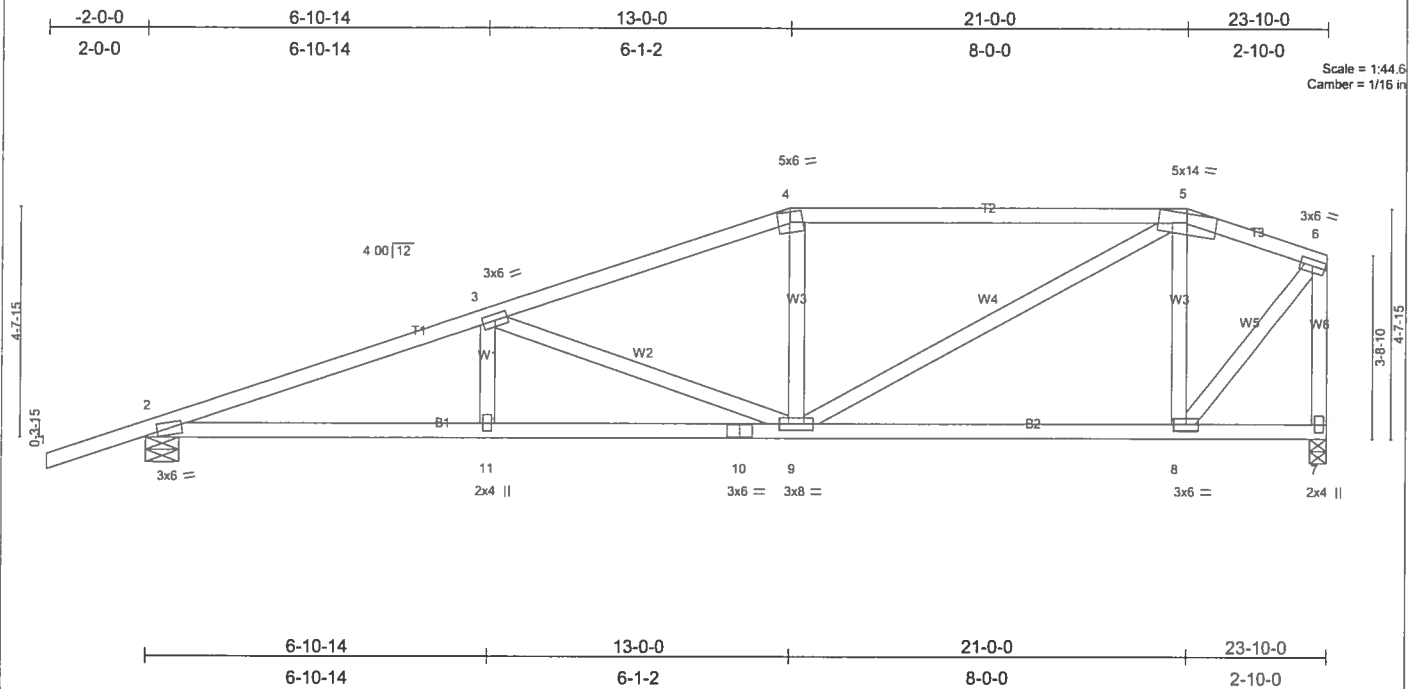


Plate Offsets (X,Y): [2:0-2-4,Edge]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.48	Vert(LL)	-0.13	8-9	>999	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.52	Vert(TL)	-0.22	8-9	>999	180		
BCCL 10.0	Lumber Increase 1.25	WB 0.56	Horz(TL)	0.05	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TP2002								
								Weight: 124 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 2=1113/0-8-0, 7=975/0-4-0

Max Horz 2=214(load case 3)  
 Max Uplift 2=-492(load case 3), 7=-340(load case 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-2224/836, 3-4=-1481/611, 4-5=-1362/624, 5-6=-664/282, 6-7=-978/407  
 BOT CHORD 2-11=-893/2042, 10-11=-893/2042, 9-10=-893/2042, 8-9=-249/617, 7-8=-14/5  
 WEBS 3-11=0/194, 3-9=-728/333, 4-9=0/108, 5-9=-376/867, 5-8=-587/365, 6-8=-415/1020

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 492 lb uplift at joint 2 and 340 lb uplift at joint 7.

**LOAD CASE(S)** Standard

Job <b>L159972</b>	Truss <b>T13</b>	Truss Type <b>SPECIAL</b>	Qty <b>1</b>	Ply <b>1</b>	Job Reference (optional)
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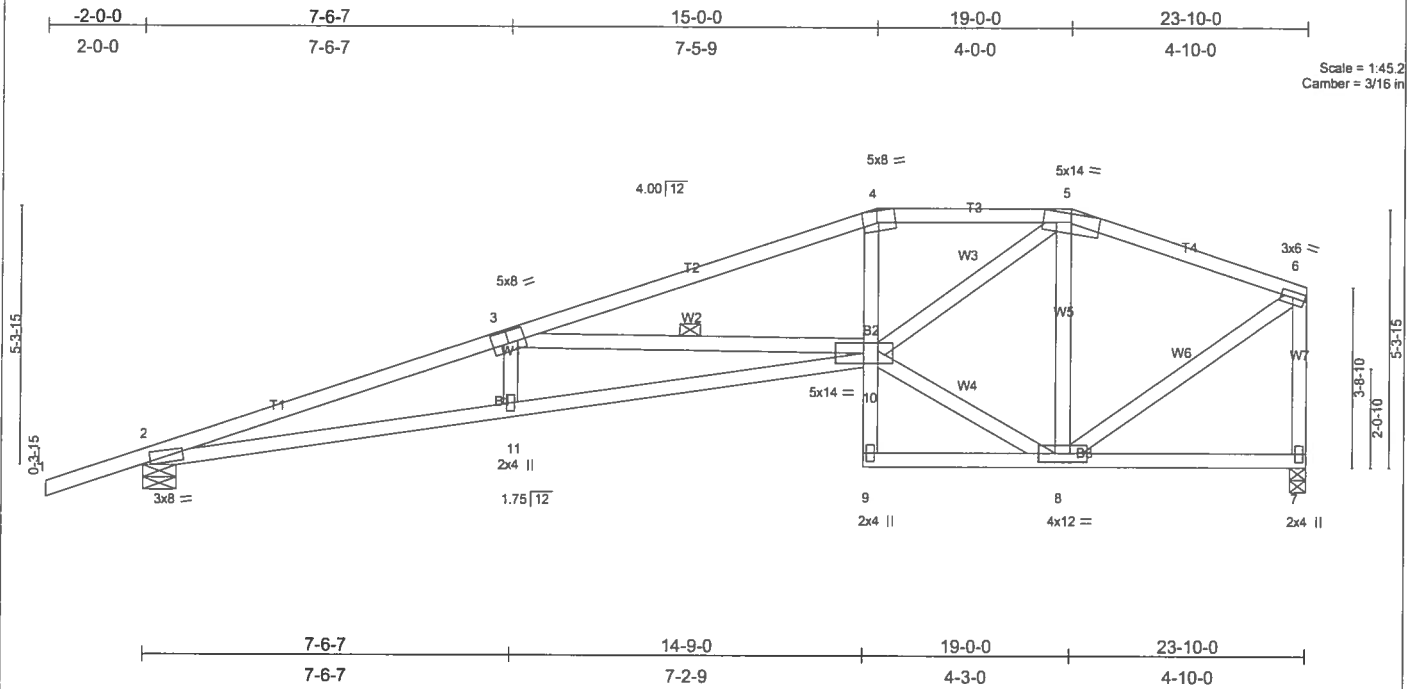


Plate Offsets (X,Y): [3'-0-4-0, 0-3-0], [4'-0-3-7, Edge]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2'-0-0	TC 0.53	Vert(LL)	-0.34	10-11	>820	240	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.75	Vert(TL)	-0.55	10-11	>508	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.43	Horz(TL)	0.22	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2004/TPI2002							Weight: 129 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2 \*Except\*  
 B2 2 X 4 SYP No.3  
 WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-10-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 5-1-4 oc bracing.  
 WEBS 1 Row at midpt 3-10

**REACTIONS** (lb/size) 2=1113/0-8-0, 7=975/0-4-0  
 Max Horz 2=223(load case 3)  
 Max Uplift 2=-485(load case 3), 7=-318(load case 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/31, 2-3=-3558/1455, 3-4=-2098/902, 4-5=-1825/857, 5-6=-844/380, 6-7=-900/427  
 BOT CHORD 2-11=-1488/3341, 10-11=-1488/3352, 9-10=0/55, 4-10=-34/322, 8-9=-30/17, 7-8=-21/40  
 WEBS 3-11=0/229, 3-10=-1378/639, 8-10=-308/815, 5-10=-585/1340, 5-8=-760/394, 6-8=-361/889

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 485 lb uplift at joint 2 and 318 lb uplift at joint 7.

LOAD CASE(S) Standard

Job <b>L159972</b>	Truss <b>T14</b>	Truss Type <b>SPECIAL</b>	Qty <b>2</b>	Ply <b>1</b>	Job Reference (optional)
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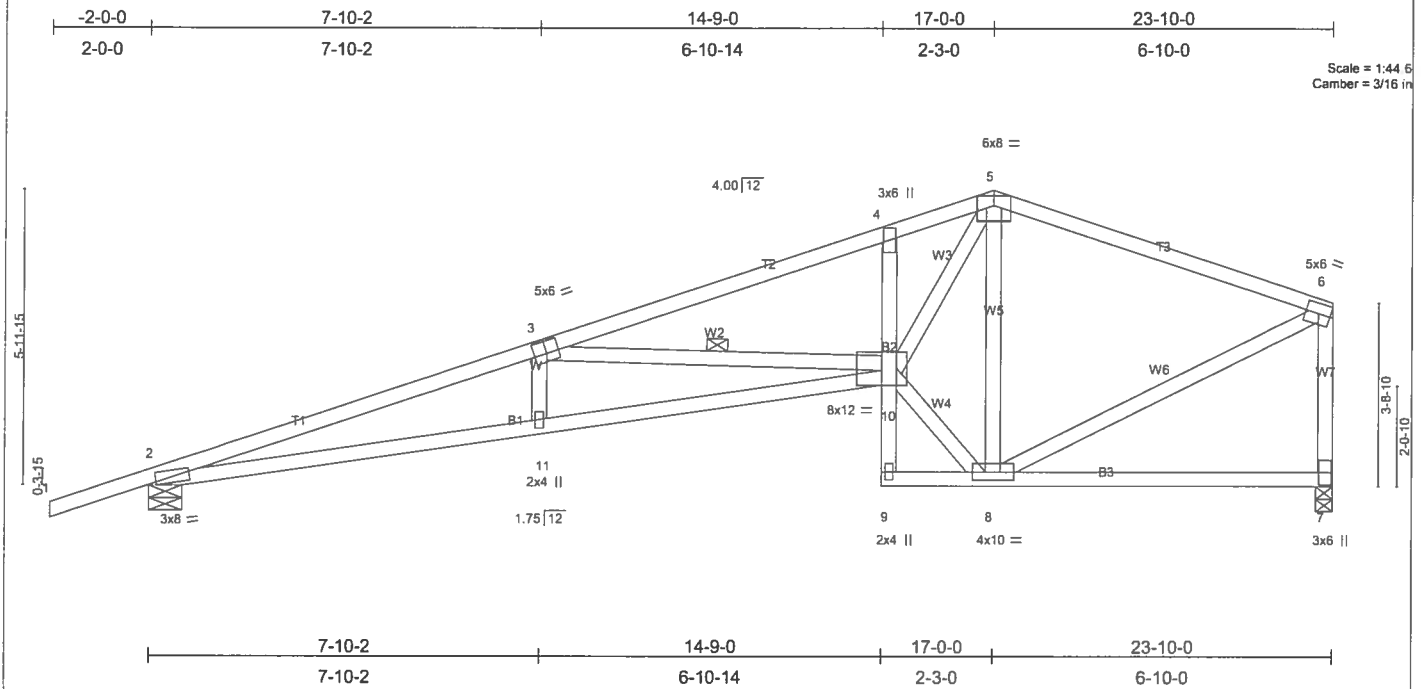


Plate Offsets (X,Y): [3:0-3:0,0-3:0], [10:0-6:0,0-3:9]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2'-0"	TC 0.64	Ver(LL)	-0.33 10-11	>845	240	MT20	244/190
TCCL 7.0	Plates Increase 1.25	BC 0.77	Ver(TL)	-0.53 10-11	>525	180		
BCCL 10.0	Rep Stress Incr YES	WB 0.61	Horz(TL)	0.23 7	n/a	n/a		
BCDL 5.0	Code FBC2004/TPI2002	(Matrix)						
							Weight: 129 lb	

**LUMBER**

TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2 "Except"  
 B2 2 X 4 SYP No.3  
 WEBS 2 X 4 SYP No.3

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 5-1-8 oc bracing.  
 WEBS 1 Row at midpt 3-10

**REACTIONS** (lb/size) 2=1113/0-8-0, 7=975/0-4-0  
 Max Horz 2=233(load case 3)  
 Max Uplift 2=477(load case 5), 7=301(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension

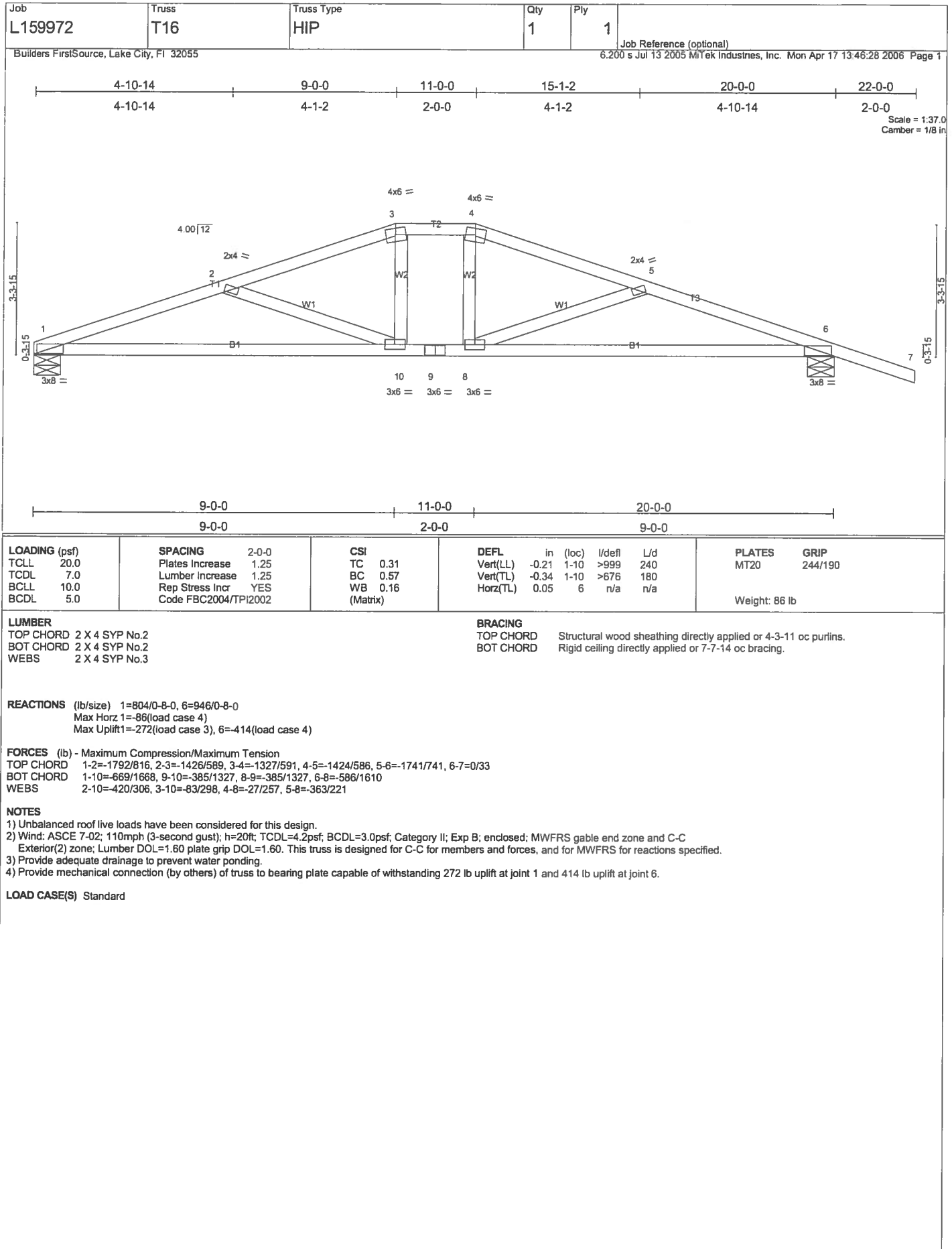
TOP CHORD 1-2=0/31, 2-3=3517/1451, 3-4=-2070/914, 4-5=-1887/907, 5-6=-964/449, 6-7=-871/443  
 BOT CHORD 2-11=-1482/3301, 10-11=-1486/3283, 9-10=-23/0, 4-10=-214/157, 8-9=-47/24, 7-8=-41/80  
 WEBS 3-11=0/240, 3-10=-1342/631, 8-10=-441/1169, 5-10=-833/1877, 5-8=-1054/537, 6-8=-361/879

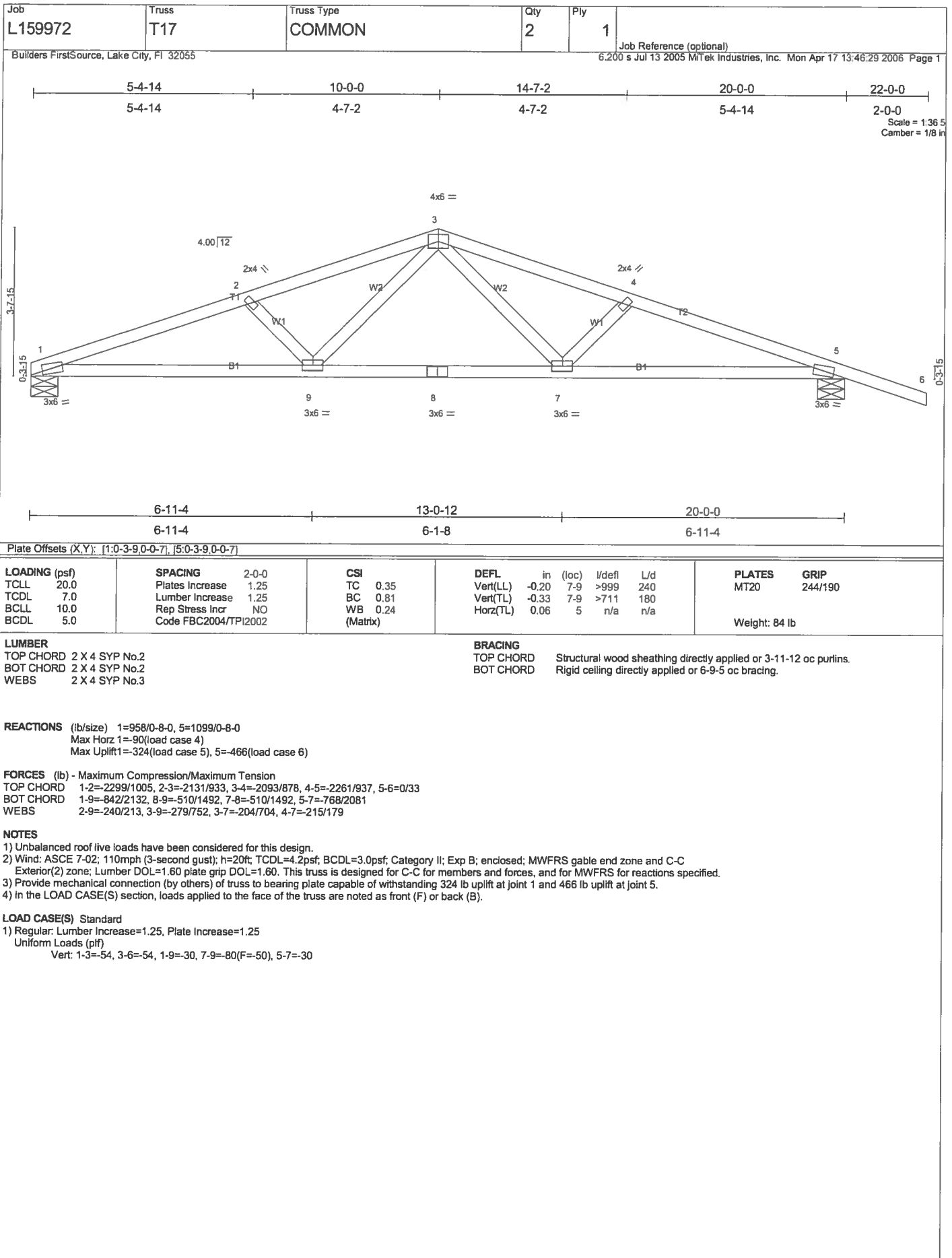
**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf, BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 477 lb uplift at joint 2 and 301 lb uplift at joint 7.

**LOAD CASE(S)** Standard







Job <b>L159972</b>	Truss <b>T18</b>	Truss Type <b>COMMON</b>	Qty <b>3</b>	Ply <b>1</b>	Job Reference (optional)
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Plate Offsets (X,Y): [1:0-2-13,0-0-7], [1:0-1-9,Edge]					
LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plates Increase 1.25	BC 0.88	Vert(LL) -0.20 7-8 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.29	Vert(TL) -0.39 7-8 >588 180		
BCDL 5.0	Rep Stress Incr NO	(Matrix)	Horz(TL) 0.07 5 n/a n/a		
	Code FBC2004/TPI2002			Weight: 84 lb	

**LUMBER**  
 TOP CHORD 2 X 4 SYP No.2  
 BOT CHORD 2 X 4 SYP No.2  
 WEBS 2 X 4 SYP No.3  
 WEDGE  
 Left: 2 X 4 SYP No.3

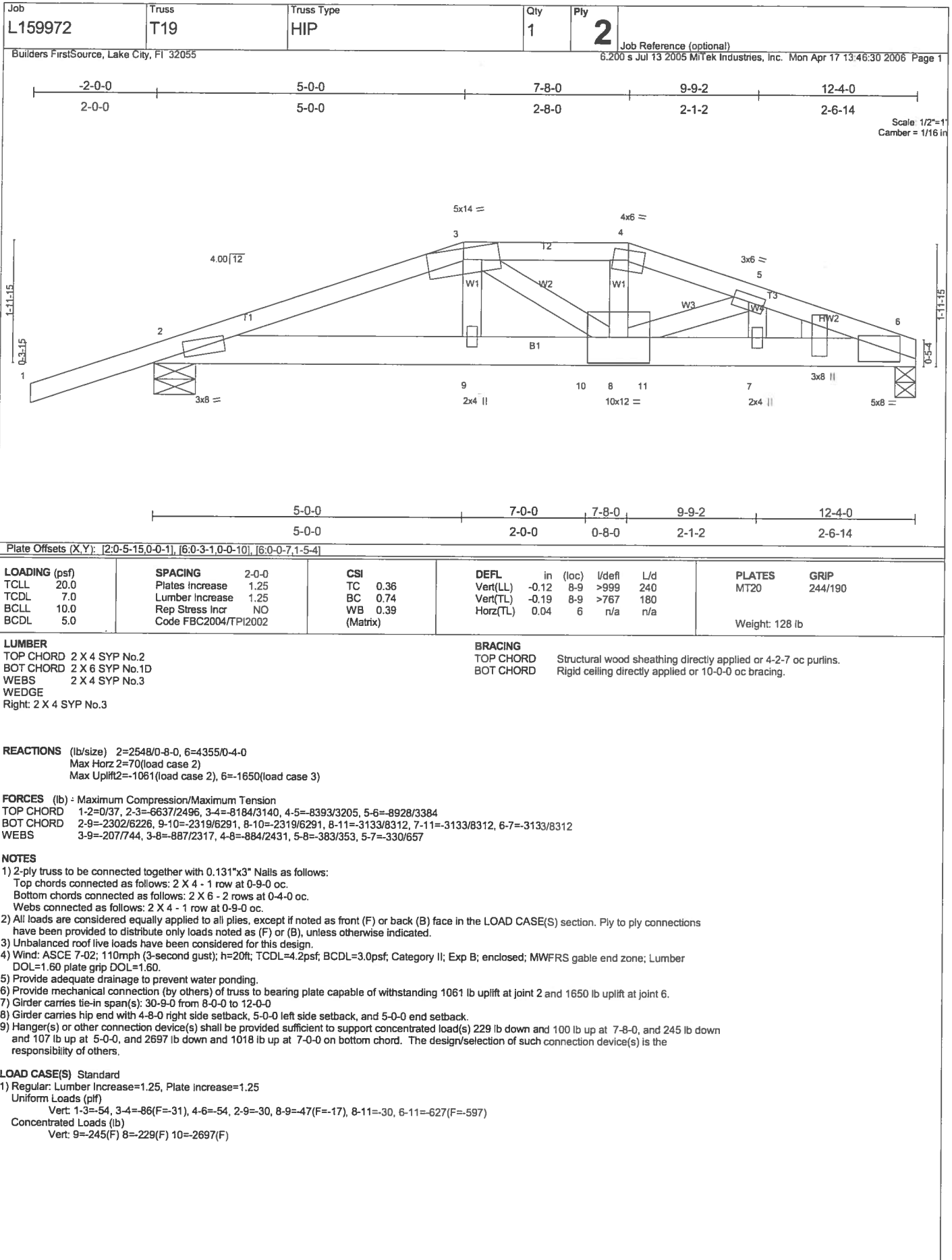
**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 3-7-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 8-2-15 oc bracing.

**REACTIONS** (lb/size) 5=1155/0-8-0, 1=1087/0-4-0  
 Max Horz 1=-90(load case 4)  
 Max Uplift 5=-399(load case 6), 1=-186(load case 5)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=-2548/664, 2-3=-2398/597, 3-4=-2268/668, 4-5=-2433/731, 5-6=0/33  
 BOT CHORD 1-9=-516/2359, 8-9=-516/2359, 8-10=-330/1638, 7-10=-330/1638, 5-7=-575/2242  
 WEBS 2-8=-208/202, 3-8=-74/911, 3-7=-175/734, 4-7=-206/188

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCCL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.  
 3) 200.0lb AC unit load placed on the bottom chord, 6-4-0 from left end, supported at two points, 5-0-0 apart.  
 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 399 lb uplift at joint 5 and 186 lb uplift at joint 1.  
 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 100 lb down at 3-10-0, and 100 lb down at 8-10-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.  
 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Regular: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-3=-54, 3-6=-54, 1-8=-30, 7-8=-80(F=-50), 5-7=-30  
 Concentrated Loads (lb)  
 Vert: 9=-100 10=-100

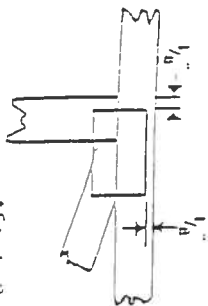


## Symbols

### PLATE LOCATION AND ORIENTATION



- Gusset plate on joint unless dimensions indicate otherwise. Dimensions are in inches. Apply plates to both sides of truss and securely seat.



- For 1 x 2 orientation, locate plates 1/8" from outside edge of truss and vertical web.



- This symbol indicates the required direction of slits in connector plates.

### PLATE SIZE



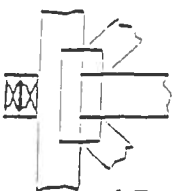
- The first dimension is the width perpendicular to slits. Second dimension is the length parallel to slits.

### LATERAL BRACING



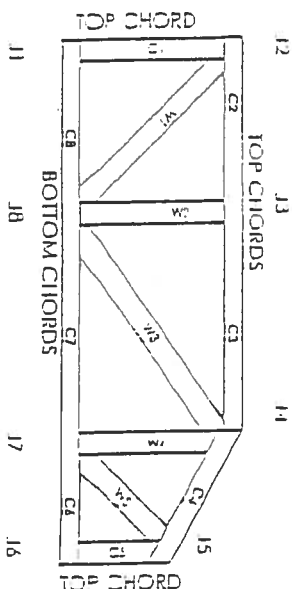
- Indicates location of required continuous lateral bracing.

### BEARINGS



- Indicates location of joints at which bearings (supports) occur.

## Numbering System

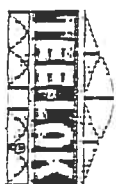


JOINTS AND CHORDS ARE NUMBERED CLOCKWISE AROUND THE TRUSS STARTING AT THE LOWEST JOINT FARTHEST TO THE LEFT.

WEBS ARE NUMBERED FROM LEFT TO RIGHT

### CONNECTOR PLATE CODE APPROVALS

BOCA	96-31, 96-67
ICBO	3907, 4922
SBCCI	9657, 9432A
WISC/DIIIIR	96D022-W, 97N036-11
IIFR	561



Mital Engineering Reference Sheet: MIT-7473

## General Safety Notes

### Failure to Follow Could Cause Property Damage or Personal Injury

1. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
2. Cut members to bear tightly against each other.
3. Place plates on each face of truss at each joint and embed fully. Avoid knots and weave at joint locations.
4. Unless otherwise noted, locate chord splices at 1/4 panel length (12" from adjacent joint).
5. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
6. Unless expressly noted, this design is not applicable for use with the replacement or preservative treated lumber.
7. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
8. Plate type, size and location dimensions shown indicate minimum plating requirements.
9. Lumber shall be of the species and size, and in all respects, equal to or better than the grade specified.
10. Top chords must be sheathed or pulleys provided at spacing shown on design.
11. Bottom chords require lateral bracing at (1) 11' spacing, or less, if no ceiling is installed, unless otherwise noted.
12. Anchorage and / or load transferring connections to lusses are the responsibility of others unless shown.
13. Do not overload roof or floor lusses with stacks of construction materials.
14. Do not cut or alter truss member or plate without prior approval of a professional engineer.
15. Care should be exercised in handling, erection and installation of lusses.

## Notice of Treatment

Applicator: **Florida Pest Control & Chemical Co. (www.flapest.com)**

Address: 536 SE Baya Dr

City: Lake City Phone: 252-1703

Site Location: Subdivision \_\_\_\_\_

Lot # 7 Block# \_\_\_\_\_ Permit # 24584

Address: 386 SW Mallie Ter L.C.

<u>Product used</u>	<u>Active Ingredient</u>	<u>% Concentration</u>
<input checked="" type="checkbox"/> Premise	Imidacloprid	0.1%
<input type="checkbox"/> Termidor	Fipronil	0.12%
<input type="checkbox"/> Bora-Care	Disodium Octaborate Tetrahydrate	23.0%

Type treatment:

☒ Soil

☐ Wood

<u>Area Treated</u>	<u>Square feet</u>	<u>Linear feet</u>	<u>Gallons Applied</u>
<u>Built-in</u>	<u>1958</u>	<u>140</u>	<u>140</u>
_____	_____	_____	_____
_____	_____	_____	_____

As per Florida Building Code 104.2.6 – If soil chemical barrier method for termite prevention is used, final exterior treatment shall be completed prior to final building approval.

If this notice is for the final exterior treatment, initial this line \_\_\_\_\_.

6/26/06  
Date

11:20  
Time

[Signature]  
Print Technician's Name

Remarks: \_\_\_\_\_  
\_\_\_\_\_

Applicator - White

Permit File - Canary

Permit Holder - Pink

10/05



# COLUMBIA COUNTY OFFICE OF CIVIL ENGINEERING

## OCCUPANCY

### COLUMBIA COUNTY, FLORIDA

### Department of Building and Zoning Inspection

*This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.*

Parcel Number 07-4S-16-02808-025

Building permit No. 000024584

Use Classification SFD/UTILITY

Fire: 55.80

Permit Holder DAVE MANGRUM

Waste: 167.50

Owner of Building DAVE MANGRUM

Total: 223.30

Location: 386 SW MOLLIE TERR.(BARWICK WEST, LOT 7)

Date: 12/15/2006



Building Inspector

POST IN A CONSPICUOUS PLACE  
(Business Places Only)